

LOCKE'S
CONDUCT OF THE UNDERSTANDING

WITH INTRODUCTION, NOTES AND ANALYSIS

BY
UPENDRA NATH MAITRA, M.A.
LECTURER, HOOGHLY COLLEGE

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Conduct of the Understanding :

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ANALYSIS OF LOCKE'S CONDUCT OF THE UNDERSTANDING.

SECTION I.

INTRODUCTION.

The understanding is the last spring of human conduct, though the will is the immediate motive power. Causes of the misconduct of the understanding :—

(1.) Hitherto the conduct of the understanding *i. e.* rules for its guidance had been based on Aristotalian and Scholastic logic. These systems of logic furnish adequate rules only for the purposes of civil life and academic disputations but were inadequate for the conduct of the understanding, in the investigation of the laws of the physical Science.

Bacon pointed out these defects and sought to remedy them by his logic *i. e.* his logic of Induction.

SECTION II.

PARTS.

2. The understanding of different individuals vary ; that in which a particular man excels is called his parts or his abilities ; that in which he is wanting is called his natural defects.

The rules of Aristotalian and Scholastic logic are not adequate to the task of remedying these defects.*

SECTION III.

REASONING.

3 True reasoning is replaced in many men by prejudices :— (a) A blind following of examples or thinking as others think. (Corresponds partly to Bacon's "Idols of the theatre"). (b) Following the dictates of our own passions. (Corresponding to Bacon's "Idols of the cave").

(c) **Partial views of things.** As with the objects of the sense of sight, so with the objects of reason, a different point of view leads to different ideas and conclusions regarding the same thing ; which ideas and conclusions therefore are true only for the part to which they refer but false with regard to the whole. If this imperfection in reasoning is found to exist in different degrees among men we may well suppose the graduation carries upwards in reasoning through angels and spirits, *i. e.* through an order of being endowed with a higher reasoning power.

The first two prejudices give rise to error due to the absence of reason in those who hold them.

The third due to reasoning exercised within an unduly limited sphere of knowledge and constitute a class in which right reasoning nevertheless leads to erroneous conclusions. This is exemplified from the analogy of the Marian islanders. Such error can be rectified by enlarging our own sphere of knowledge by means of accumulated knowledge of past ages enshrined in books and of the knowledge stored up in the minds of those living, who look up to things from points of view different from our own. But both these kinds of knowledge, with which we seek to enlarge our own, are to be shifted so as to separate the truth from the error they contain.

This shifting is the work of natural reason which all men possess but which in different men is of different degrees of development, through the counter-acting force of prejudice, of want of exercise or a too narrow field for exercise. (Locke here says that prejudice is to be removed by reason and that reason is hindered by prejudice.)

This is illustrated from the gradations of knowledge found in villages and town-life, in the mental capacity of the country squires and in their religious bigotry ; whence these differences,—because all these men though they have equal natural parts have had unequal education bestowed on these parts.

This difference in the extent of the field or sphere of knowledge makes all the difference between the school man and the inductive reasoner. Such a reasoner in search after truth must (a) have a clear idea of what he is in search of, (b) must be unbiassed in the manner of executing his search *i. e.* must guard himself from prejudice

against or reverence for the author of an opinion whose truth he is investigating.

SECTION IV.

PRACTICE AND HABITS.

What is innate in man ? Mind *i. e.* faculties.

What serves to develop these natural faculties ?—Exercise.

The same analogy holds true of man's bodily powers and of their development by bodily exercise.

Whence arise the different degrees of development of any particular faculty in different men ?—From different degrees of exercise.

Here Locke seems to admit that there is something else innate in man besides faculties *viz.* a natural disposition to exercise a particular faculty more than any other which disposition has a share in bringing about this difference in the degrees of development.

(4) Therefore a want of exercise or to neglect to form habits of mind (and not the want of natural faculty or the presence of natural defects) gives rise to defects in the understanding. Cf. with what Locke says of natural defects on P. 5.

Definition of Habit—when a particular faculty is developed more than others, the development is due to more frequent exercise of it, such a development and the consequent tendency to action is called a habit of mind.

SECTION V.

IDEAS (also in sec IX)

(5) The use of obscure ideas instead of clear and distinct ones and the use of signs apart from their ideas *i. e.* the habit of dealing with words rather than the things they signify, as in scholasticism.

An idea is clear when it faithfully represents every part or every attribute of the object it stands for ; an idea is distinct when the mind perceives it to be different

from other ideas from which it ought to be different.

SECTION VI.

PRINCIPLES.

(6) Setting up false assumptions instead of self-evident principles as the starting-point of our reasoning.

Locke refers to the principles of knowledge which are truths of propositions on which our reasoning is based. Such a principle or truth consists of the agreement or disagreement of two or more ideas. No principle can therefore be innate unless the ideas of which it consists are also innate but there are no innate ideas; hence there are no innate principles. Such false assumption we set up not with an intention to deceive ourselves or others but from the necessity of the human mind to base its opinions on some foundation or other, a false one as in the present case or one accepted without question on pure faith as in the case of religion.

This necessity drives us often to choose false foundations for our reasoning because of our inability to choose a true one; this inability arises from the want of exercise of our natural parts *i. e.* true principles are not innate but the product of exercise.

The same error that arises in the case of principles of knowledge or speculative truth arises in the case of the principles of practice or practical truth.

The remedy lies in experience and exercise.

"Man is a rational creature" the meaning of this is not that he has a natural gift of reasoning, right on all occasions and all subjects alike but that there is in him the possibility of reasoning aright on any particular subject if he has been exercised in that subject. Hence we find that a man who reasons aright in a certain subject may reason wrong in another subject in which he has had no exercise. (Compare what Locke says about natural reason P. 10).

This exercise of understanding should commence early in life.

Examples of speculative truths—one and two make three, red is not blue.

Practical truths are the definitions of virtue, justice

and the moral rules of conduct. None of these, says Locke, are innate.

SECTION VII.

MATHEMATICS.

This exercise of reason is best obtained in the study of mathematics. In reasoning there are two classes of methods and conclusions. The certain or demonstrative, and the probable forming the subjects respectively of logic and dialectic.

The premisses in the former being certain and in the latter probable.

In the case of probable reasoning (to which class belong the entire range of human affairs and all the sciences except the exact ones) a single argument or a chain of arguments is not enough to lead to a probably correct conclusion : hence:—

(7) The false method of topical argument from one point of view alone.

The best remedy is afforded by the study of mathematics which has the effect (a) of convincing us more conclusively than any other studies of the defects in our understanding.

(b) Of training us to separate relevant from irrelevant ideas and to concentrate our minds upon the former alone for arriving at a right conclusion.

(c) Of habituating us to sustain a continuous reasoning.

SECTION VIII.

RELIGION.

(8) Religion is wrongly supposed to be outside the range of understanding. The cause of this is the neglect of the laity to reason upon matters of religion and the neglect of the clergy to guide and instruct them aright.

Locke points to the Huguenot peasantry of France as an instance of both what religion can do to elevate the understanding and what the understanding can do to

explain religion ; he seems to insist here upon the rational character of Christianity.

SECTION IX.

IDEAS.

(9) The neglect to form clear and distinct abstract ideas.

Ideas are two classes.

(a) Ideas of sensation conveyed by external objects into the mind through the senses, e. g.—Ideas of a tree, colour, of heat and cold.

(b) Ideas of reflection obtained by the mind by attending to its own operation within itself. e. g.—The ideas of perception or thinking, of willing, of virtue and vice. The latter are summed up as the abstract and moral ideas ; from their agreement or disagreement are formed the principles of abstract knowledge and the principles of practice or ethics.

The formation of this class of ideas and principles is more difficult than the formation of concrete ideas and of the principles based on their agreement or disagreement.

Definition—A Real idea is one which is derived from something that has an actual external existence in nature e. g.—The ideas of a horse.

A fantastical or chimerical idea is one that has no such foundation in nature. e. g. The idea of a centaur.

SECTION X.

PREJUDICE.

(10) Prejudice (see no. 3) which is opinion in itself either right or wrong but drawn from insufficient or false evidence ; the remedy consists in not accepting our opinions as absolute truths until we have subjected them to every possible test of reason to be applied both by ourselves and by those who hold a contrary opinion.

That portion of an opinion we hold, that stands ~~this~~ test can be accepted as an absolute truth ; that portion of it which has the balance of reason in its favour is a probable truth ; and that portion of it which has been shown

to rest not on reason but on custom or authority, on passion, on interest, on an aversion to reason blind acceptance is to be set down as Prejudice.

SECTION XI. (also in sec XXXIV.)

INDIFFERENCY.

The application of this test requires.—

(a) An attitude of impartiality to all opinions alike both what we hold and their contraries.

SECTION XII.

EXAMINE.

(b) A readiness to examine the truth of our principles of reason and to abandon them if we find them to be groundless presumptions.

This frame of mind with regard to our opinions and principles constitute the freedom of understanding. The clinging to prejudice in any of its shape constitutes the bondage of the understanding or self-deception. This freedom does not enable the understanding to comprehend all knowledge and to attain perfection in any branch of knowledge but it enables us to attain that portion of knowledge that we may need if we apply ourselves to it. This bondage leads in time to a false kind of freedom which consists in rejecting all opinions and principles when experience has shown those alone to which we have clung to be false. This unwarrantable rejection is called scepticism.

SECTION XIII.

OBSERVATION.

Defects or weakness of the understanding.—

(1) The neglect to make observation or a too great haste to make observation from insufficient data, matters of fact furnish a crude material out of which our mind should build up "observation".

Locke therefore uses the word *observation* in the sense

of inductive inference from observed particulars ; when such an inference is not final but provisional, he calls it an imperfect observation : (the usual meaning of *observation* is 'attention to or examination of a phenomenon or matter of fact as it presents itself to us naturally as distinguished from an *experiment* in which we ourselves introduce artificial circumstances or conditions intentionally).

(a) The neglect to make observation fills the mind with a confused heap of matters of fact.

(b) The too great haste to make observations leads to a false philosophy of history or to false axioms.

(c) The true method of observation is to form intermediate or imperfect observation till further examination of additional matters of fact disproves, modifies or confirms them.

SECTION XIV.

BIAS.

(2) Bias by which our judgements are influenced by our passions and temperament, so that truth is no longer presented to us as it is.

A remarkable instance of bias:—thinking and acting in the name of religion and justice when we really think or act from selfish or party motives.

SECTION XV.

ARGUMENTS.

(3) Misuse of arguments either

(a) by setting up false arguments to support our judgement when perverted by bias ; or

(b) by starting arguments *pro* and *con* on a subject after collecting such argument not from our own knowledge of the subject but from the opinions of others on it set forth in books. The remedy lies in acquiring ~~the~~ knowledge of the subject itself at first hand.

SECTION XVI.

HASTE (also in sec xxv.)

(4) (a) Haste to arrive at a conclusion due to laziness which shrinks from reasoning step by step from it. This makes us prefer testimony or hearsay in argument, a single demonstrative argument to many arguments when the subject requires the balancing of many probable arguments a verbal argument to an argument from matters of fact and an argument based on improved or assumed premisses to an argument traced to unquestioned axiom.

SECTION XVII AND XVIII.

DESULTORY AND SMATTERING.

Other instances of this mental inertia are desultoriness and superficiality.

SECTION XIX.

UNIVERSALITY.

(5) Neglect to cultivate *universality* which means some degree of insight into all branches of knowledge and therefore is distinct from *smattering* and opposed to *partiality* (see 22 and 24) on the one hand and to what Locke calls *universal knowledge* on the other hand, *i. e.*, a perfect or full knowledge of every thing.

Such a perfect or full knowledge is possible and necessary to every man in only two things *viz.* his own profession and his religion but universality gives a freedom and versatility to the understanding a power of reasoning upon any branch of knowledge from its own appropriate stand-point and a comprehensive view of the entire intellectual world and of the place and importance of each separate branch of knowledge in this whole. The opposite defect of partiality crystallises the mind into a rigid and unalterable mould and makes it reason upon any branch of knowledge from the single incongruous stand-point of that particular branch which alone it has cultivated.

SECTION XX.

(6) **Abuses of reading** When we read without reflecting, we load the memory without improving the judgment, because.

(a) Books often contain false judgment.

(b) The passive acceptance of the judgments of others from books even when they are correct leads to the neglect of the exercise of our own faculty of judgment.

The true method of reading lies in being able to follow the thread of an argument to its origin in self-evident truth.

SECTION XXI.

INTERMEDIATE PRINCIPLES.

"Axiomata media of Bacon"—The middle axiom below which Bacon has the lowest axiom.

An aid to the pursuit of this method is the establishment of intermediate principles as stages so that instead of tracing the point in question right up to the axiom and self-evident maxim in every case, it will be enough if we can trace it up only to an intermediate principle which itself has already been traced up to its axiom.

SECTION XXII.

PARTIALITY (also in sec 24)

(7). Partiality which consists in

(a) overestimating the importance of that particular branch of knowledge in which we are especially versed and giving it a higher rank than any other branch.

SECTION XXIII.

THEOLOGY.

Theology is the one branch of knowledge which alone rightly claims this pre-eminence and is therefore the only exception under this head.

Reason for this pre-eminence Theology is the final

science towards which all other sciences tend as means. This final character of Theology is due to its object *viz.* a knowledge of God the Creator and a true worship of Him in promoting the happiness of his creation.

Theology has two branches—natural and revealed.

SECTION XXIV.

PARTIALITY.

(7) (1.) Applying the method of one particular branch of knowledge with which we are familiar to the solution of questions in other branches of knowledge (see p. 44). The true course is to suit the method to the nature of the science to be treated.

(c) An arbitrary attribution of all knowledge to certain epochs and races and its denial to other epochs and races.

The truth is not the exclusive product of a particular country, time or race nor does age or antiquity make a truth stronger or more convincing (Time however exposes a falsehood that has long passed for truth and particular epochs or races may be more active in the discovery of truth than others).

(d) setting up a false mark of truth *viz.* that is true which is most widely believed or contrarily that is true which is opposite to popular belief. Locke calls this false mark orthodoxy and contrarily heterodoxy or love of paradoxes. The former is false because the multitude often reason badly, the latter is false because it assumes that the multitude must always necessarily reason wrong.

(e) making the authority of a book as final or setting up second-hand or implicit knowledge as true Books from which this implicit knowledge is derived are conversant with either facts or reasoning. Facts are of three sorts.—

- (1) Merely of natural agents
- (2) of voluntary agents
- (3) of opinions.

Reasonings are of three kinds.

- (1) Intuitive
- (2) demonstratively certain
- (3) probable.

But facts are useful only so far as they supply the materials of reasoning upon which the improvement of the understanding depends ; now by setting up the authority of reason we accept the reasonings of others without reasoning ourselves and therefore without improving our understanding.

An Intuition is the immediate perception of the agreement or disagreement of two ideas without the intervention of intermediate ideas.

SECTION XXV.

HASTE.

(4) (b) Haste in passing from one idea or one truth imperfectly understood to another.

In trying to avoid this we must be careful not to fall into the opposite error of lingering over trifling and irrelevant ideas of truth. The value of truth is not to be measured by the amount of labour required for its discovery but by the amount of its usefulness when discovered.

(c) Haste in passing from particulars, imperfectly observed to conclusion (p. 40).

Such imperfect observation of particulars are safe for the establishment of "hints of enquiry" *i. e.* of hypothesis or indication towards conclusion but not safe for the establishment of conclusions themselves.

SECTION XXVI AND XXVII.

ANTICIPATION AND RESIGNATION.

(8) Prepossession or preference for our first opinion however hastily formed and the opposite defect of facility or changing our opinion so as always to follow the last opinion. The order in time first or last is not the test or measure of truth.

(Locke uses the word *anticipation* in an unusual sense; usually it means an expectation of a phenomenon in the future from constant experience of it. Locke uses the word in Bacon's sense in 'Novam organum' where anti-

cipation of mind is contrasted with the interpretation of nature or induction. The former abides by the discovery already made in science, the latter seeks to penetrate, from what has been discovered, into what is still unknown.

SECTION XXVIII.

PRACTICE.

(9) Exercise of the powers of the mind beyond their strength on the one hand and an excessive fear to overtax their strength on the other, have alike the effect of weakening the understanding.

The proper method lies in a graduated scale of exercise rising higher and higher with the growth of the mental powers which growth itself is the result of such judiciously adjusted exercise.

SECTION XXIX.

WORDS.

(10) Not to accept words for things from however high an authority they may proceed until we have formed clear ideas of the things meant without such an idea a word is meaningless.

Substantial form—The internal reality of which any class of things is the outward manifestation ; thus, "rational soul" is the substantial form of man.

Internal species—were supposed to be certain images or similitude intermediate between the outward object and the perceiving mind.

Do things therefore exist only so far as we can form ideas of them ! Certainly not, answers Locke, but the fact of their existence is the same to us as if they do not exist so long as we can form no idea of them.

SECTION XXX.

WANDERING.

(11) Wandering of the mind from the chain of ideas

relating to the enquiry in hand to idea foreign to the enquiry.

SECTION XXXI.

DISTINCTION

(12) Abuse of distinction and division :—

(a) By carrying them to excess.

(b) By not carrying them far enough or not making them at all.

(a) Distinction rightly made is the recognition by the mind of a difference between two things and if necessary, the outward expression of this recognition by bestowing on the things different names.

Division rightly made is the grouping together under one class (e. g. genus and species) of all individuals which possess a distinctive mark in common and a separation of them from all other individuals that do not possess that distinctive mark.

Distinction carried to excess consists in inventing distinctive names when there are no real things distinct from each other to correspond to those names; such distinction is called *verbal*.

Division carried to excess consists in the establishment of successively smaller and smaller classes upon the strength of the perception of successively more and more minute perception between individuals hitherto grouped under the same class so that ultimately such excess may result in a class which has only one individual under it, such a division is called *nominal*.

Verbal distinction and nominal divisions are both alike useless for scientific researches. A distinction may be perceived by the mind between two things to which nevertheless two distinct names have not been given so that both things are signified by the same word such a distinction may be called *real distinction* and such words are termed *equivocal*. But when the mind clearly and distinctly perceives the ideas of the two things to be different, the equivocal character of the single term that stands for both can not possibly produce a confusion in the mind between the things themselves and ideas. Such clear and distinct ideas are used in Mathematics in which therefore there is no danger.

Verbal distinctions, nominal divisions and equivocations were the potent weapons of the scholastic art of disputation.

(b) We may in this fail to perceive distinctions between things where nature has made distinctions, or perceiving them we may fail to find words or terms to express the distinction. In the former case the defect is in the mind itself and the remedy lies in the cultivation of the power of discrimination ; in the latter case the defect lies in the poverty of language and the remedy lies in substituting a definition (by genus and differencia) of the thing itself in the absence of a term signifying the thing.

SECTION XXXII

SIMILES.

The particular case of this confusion of ideas in the use of similes. The true use of a simile is to make an idea clear and distinct to my own mind and also clear and distinct in the mind of another to whom I wish to communicate it. The abuse of a simile lies in attempting to form in my own mind a clear and distinct idea of the thing not from direct observation upon the thing itself but from observation upon something else similar to it.

Hence a simile is often resorted to, to conceal the mind's imperfect perception of an idea.

SECTION XXXIII.

ASSENT.

(13) A habit of too ready an assent to an assertion without proof or of vacillation between opposite proofs or withholding assent from all proof as unlikely and uncertain. The causes of such habits are interest, passion, one-sided argument and the substitution of fanciful reasoning. The result is the obliteration of the line between truth and falsehood. The remedy is to use our eyes *i. e.* to observe and reason.

XXXIV.

INDIFFERENCY.

To be impartial and unbiassed, our assent is to be withheld till to the best of our ability we have weighed the evidence before us but it is to be readily given, after we have so weighed the evidence.

"Assent does not go faster or lag behind evidence".

The case in which we are most in danger of giving our assent without evidence is that of opinion received by our country or our party. Locke calls this orthodoxy. These opinions are either false or only partially true what he calls local truths or truths that happen to be in fashion. The tendency to oppose these opinions he calls heresy and heterodoxy but very often orthodoxy is not identical with truth nor heresy with error. The danger arises from the fact that the force of public opinion takes the place of true evidence in "most minds that are deficient in true knowledge. Such minds are in three conditions:—

(1) Absolute ignorance. (2) doubt. (3) firm or groundless belief.

SECTION XXXV.

IGNORANCE WITH INDIFFERENCY.

Of those condition the first approaches nearly to the frame of mind which Locke calls indifferency. The third is an absolute bar to the acquisition of all knowledge. The second interposes the influence of authority against the exercises of reasoning just as an author E. g. Hippocrates is best understood by a study of his works themselves rather than by the study of criticism upon him, so are the truths of nature best studied by a direct observation of nature herself rather than by the interpretation put upon her by minds other than our own.

Epicurics were G. K. Physicians who employed experience alone to the exclusion of generalisation, analogy and reasoning.

Methodists rejected observation and founded their method exclusively on reasoning and theory.

Dogmatists or rational physicians availed themselves of both experience and reasoning.

Chemists are the followers of Paracelsus.

SECTION XXXVI.

QUESTION.

Impartiality would consist of

- (a) The correct statement of a question of which solution is sought.

SECTION XXXVII.

PERSEVERANCE.

- (b) The working out the solution by a method suiting both the subject and our comprehension and free from the disturbing influence of authority or pre-conceived opinion.

SECTION XXXVIII.

PRESUMPTION.

- (14) Presumption or overconfidence in our natural parts which we imagine will furnish us with intuitive or innate knowledge so that we see no necessity for the exercise or cultivation of our faculty for the acquisition of experimental knowledge, for our natural condition is that of ignorance and the mind originally is a *tabula-rasa*, nature furnishes the materials and exercise alone builds up the edifice of knowledge.

SECTION XXXIX.

DESPONDENCY.

The opposite defect is despondency or want of sufficient confidence in our natural parts which we imagine will not improve by exercise and which we accordingly neglect to exercise ; but exercise of the mind not merely strengthens the natural force of our mental power but reveals that natural force to be greater originally (*i. e.* before exercise) than we thought it to be.

Exercise with regard to the external object or question before the mind reduces what seems impossible of comprehension to be possible, what seems confused and disorderly to order, what intricate and difficult to simple and easy.

A second and for the removal of this defect is to pursue a subject not in gross but methodically in the natural succession of its parts, to proceed from old to new, from one part to another so that at each step there is accession of new knowledge but also to proceed from one part to another adjoining it, from something old to something as little new as possible so that this new knowledge may be in touch with our older knowledge and our knowledge may be of gradual and sure growth. The pursuit of a subject in gross only gives confused knowledge about it *i. e.* gives no trace of knowledge about it.

SECTION XL.

ANALOGY.

(15) False analogy.

A simile sets forth resemblance between two things and is an imperfect mode for the formation of an idea of one of the things from the idea we already have of the other.

An analogy sets forth resemblance between the relations of two things and is an imperfect mode for the formation of judgement regarding one of the things from the judgement we already have of the other.

SECTION XLI.

ASSOCIATION.

(16) False association of ideas.

Locke defines true association of ideas to be a natural connection and correspondence of our ideas which it is the office of our reason to trace and hold together in that union and correspondence. He defines false associations to be a connection of ideas wholly owing to change or custom. An instance of false association of ideas due to custom or habit is the ingrafting of falsehood for truth in

the mind of the young by the teachers and of the unthinking multitude by their leaders.

The test of this falsehood is the reluctance of their propagators to submit it to the test of reason. When an association of ideas stands this test Locke calls it a true or natural cohesion of ideas, when it fails to stand the test he calls it false or unnatural connection of ideas. Reason has the double task of guarding against the first springing up of such false associations and of detecting them when they have taken deep root. The rapidity of transition from an idea to its false associate is illustrated from the theory of vision.

SECTION XLII.

FALLACIES.

(17) Fallacies.

Prejudice and inclination lead us to invert the order of right reasoning by first drawing the conclusion we wish for, then inventing the premisses necessary to prove these conclusions.

Fallacy consists in so altering the terms of true judgment as to frame these false premisses. This alteration is either a deliberate act meant to deceive others when Locke calls it wilful sophistry or an unconscious process by which the fallacious reasoner imposes on himself; when Locke calls it undesigned sophistry. The remedy lies

(a) in defining our terms at the outset and never departing from that definition when we combine these terms into philosophy.

(b) In neglecting the terms altogether and attending wholly to the idea of which the term was the symbol.

SECTION XLIII.

FUNDAMENTAL VERITIES.

(18) The pursuit of certain kinds of knowledge viz.

(a) Of trifling knowledge instead of fundamental knowledge, of incidental knowledge instead of knowledge of the main point, of formal knowledge instead of real substantial knowledge, of barren knowledge instead of fruitful knowledge. Examples of fundamental know-

ledge in science "that all bodies gravitate to one another." In morality "we should love our neighbour as ourselves."

SECTION XLIV.

BOTTOMING.

(b) Of probable or conditional knowledge without pushing our enquiries far enough to a point where the probability will resolve itself into certainty and the conditional into absolute. At such a point we shall reach some fundamental truth which shall effect this change

SECTION XLV.

TRANSFERRING OF THOUGHTS.

(19) Slavery of thought. Freedom of thought mean the power of passing from one thought or chain of thoughts to another wholly unconnected with it.

Usurping powers are :—

1. The tyranny of passion. Passion concentrates our thoughts on a subject without increasing our knowledge of the subject but perhaps increasing our desire an object then engrossing. Power is to be distinguished from a natural inclination of the mind E.g. Love study in which our liking for an object only serves increase our knowledge of the object.

2. Waste of thought upon indifferent and trifling subjects. This arises from our estimating the importance of such subjects not from their intrinsic value but from the amount of time and thought we have spent on them therefore the tyranny of passion is a kind of selfishness. Locke calls this *spontaneous current of thought* which current has the tendency to accelerate it unless checked.

3. An involuntary motiveless harping upon some thought or image to the exclusion of all others.

Remedies for these states of mind

1st. Laying^g of the passion or counter-balancing it by another passion.

2nd. Replacing trifling and indifferent subjects by more serious ones that possess an interest of their own i.e. do not owe all the interests to the fact that we have spent our time on them.

3. Rousing the mind from relaxed and purposeless state to active efforts on some definite object

END.

CONDUCT OF THE UNDERSTANDING.

1. Introduction.—The last resort a man has recourse to in the conduct of himself is his understanding ; for though we distinguish the faculties of the mind, and give the supreme command to the will as to an agent, yet the truth is, the man which is the agent determines himself to this or that voluntary action upon some precedent knowledge, or appearance of knowledge, in the understanding. No man ever sets himself about any thing but upon some view or other which serves him for a reason for what he does : and whatsoever faculties he employs, the understanding, with such light as it has, well or ill informed, constantly leads ; and by that light, true or false, all his operative powers are directed. The will itself, how absolute and uncontrollable soever it may be thought, never fails in its obedience to the dictates of the understanding. Temples have their sacred images, and we see what influence they have always had over a great part of mankind. But in truth the ideas and images in men's minds are the invisible powers that constantly govern them, and to these they all universally pay a ready submission. It is therefore of the highest concernment that great care should be taken of the understanding, to conduct it right in the search of knowledge and in the judgments it makes.

The logic now in use has so long possessed the chair, as the only art taught in the schools, for the direction of the mind in the study of the arts and sciences, that it would perhaps be thought an affectation of novelty to suspect that rules that have served the learned world these two or three thousand years, and which, without any

complaint of defects, the learned have rested in, are not sufficient to guide the understanding. And I should not doubt but this attempt would be censured as vanity or presumption, did not the great Lord Verulam's authority justify it ; who, not servilely thinking learning could not be advanced beyond what it was, because for many ages it had not been, did not rest in the lazy approbation and applause of what was, because it was, but enlarged his mind to what might be. In his preface to his *Novum Organum*, concerning logic, he pronounces thus : " Quisummas dialecticæ pares tribuerunt atque inde fidissima scientiis præsidia comparari putârunt, verissimè et optimè viderunt intellectum humanum sibi permissum merito suspectum esse debere. Verum infirmior omninò est malo medicina ; nec ipsa mali expers. Siquidem dialectica quæ recepta est, licet ad civilia et artes quæ in sermone et opinione positæ sunt rectissimè adhibeatur ; naturæ tamen subtilitatem longo intervallo non attingit, et prensando quod non capit, ad errores potius stabiliendos et quasi figendos quam ad viam veritati aperiendam valuit."

"They," says he, "who attributed so much to logic, perceived very well and truly, that it was not safe to trust the understanding to itself without the guard of any rules. But the remedy reached not the evil, but became a part of it ; for the logic which took place, though it might do well enough in civil affairs and the arts which consisted in talk and opinion, yet comes very far short of subtlety in the real performances of nature ; and, catching at what it cannot reach, has served to confirm and establish errors, rather than to open a way to truth." And therefore a little after he says, "That it is absolutely necessary that a better and perfecter use and employment of the mind and understanding should be introduced." "Necessariò requiritur ut melior et perfectior mentis et intellectûs humani usus et adoperatiô introducatur."

2. Parts.—There is, it is visible, great variety in men's understandings, and their natural constitutions put so wide a difference between some men in this respect, that art and industry would never be able to master, and their very

natures seem to want a foundation to raise on it that which other men easily attain unto. Amongst men of equal education there is great inequality of parts. And the woods of America, as well as the schools of Athens, produce men of several abilities in the same kind. Though this be so, yet I imagine most men come very short of what they might attain unto in their several degrees, by a neglect of their understandings. A few rules of logic are thought sufficient in this case for those who pretend to the highest improvement; whereas I think there are a great many natural defects in the understanding capable of amendment, which are overlooked and wholly neglected. And it is easy to perceive that men are guilty of a great many faults in the exercise and improvement of this faculty of the mind, which hinder them in their progress and keep them in ignorance and error all their lives. Some of them I shall take notice of, and endeavour to point out proper remedies for, in the following discourse.

3. Reasoning.—Besides the want of determined ideas, and of sagacity and exercise in finding out and laying in order intermediate ideas, there are three miscarriages that men are guilty of in reference to their reason, whereby this faculty is hindered in them from that service it might do and was designed for. And he that reflects upon the actions and discourses of mankind, will find their defects in this kind very frequent and very observable.

i. The first is of those who seldom reason at all, but do and think according to the example of others, whether parents, neighbours, ministers, or who else they are pleased to make choice of to have an implicit faith in, for the saving of themselves the pains and trouble of thinking and examining for themselves.

ii. The second is of those who put passion in the place of reason, and, being resolved that shall govern their actions and arguments, neither use their own nor hearken to other people's reason, any further than it suits their humour, interest, or party; and these one may observe commonly content themselves with words which have no distinct ideas to them; though, in other matters, that they

come with an unbiassed indifferency to, they want not abilities to talk and hear reason, where they have no secret inclination that hinders them from being tractable to it.

iii. The third sort is of those who readily and sincerely follow reason, but for want of having that which one may call large, sound, round-about sense, have not a full view of all that relates to the question and may be of moment to decide it. We are all short-sighted, and very often see but one side of a matter; our views are not extended to all that has a connection with it. From this defect I think no man is free. We see but in part, and we know but in part, and therefore it is no wonder we conclude not right from our partial views. This might instruct the proudest esteemer of his own parts, how useful it is to talk and consult with others, even such as come short of him in capacity, quickness and penetration; for since no one sees all, and we generally have different prospects of the same thing, according to our different, (as I may say), positions to it, it is not incongruous to think nor beneath any man to try, whether another may not have notions of things which have escaped him, and which his reason would make use of if they came into his mind. The faculty of reasoning seldom or never deceives those who trust to it; its consequences from what it builds on, are evident and certain; but that which it oftenest (if not only) misleads us in, is, that the principles from which we conclude, the grounds upon which we bottom our reasoning, are but a part; something is left out which should go into the reckoning to make it just and exact. Here we may imagine a vast and almost infinite advantage that angels and separate spirits may have over us, who, in their several degrees of elevation above us, may be endowed with more comprehensive faculties; and some of them perhaps have perfect and exact views of all finite beings that come under their consideration, can, as it were, in the twinkling of an eye, collect together all their scattered and almost boundless relations. A mind so furnished, what reason has it to acquiesce in the certainty of its conclusions!

In this we may see the reason why some men of study and thought, that reason right and are lovers of truth, do make no great advances in their discoveries of it. Error and truth are uncertainly blended in their minds; their decisions are lame and defective, and they are very often mistaken in their judgments: the reason whereof is they converse but with one sort of men, they read but one sort of books, they will not come in the hearing but of one sort of notions; the truth is, they canton out to themselves a little Goshen in the intellectual world, where light shines, and, as they conclude, day blesses them; but the rest of that vast expansum they give up to night and darkness, and so avoid coming near it. They have a pretty traffic with known correspondents in some little creek; within that they confine themselves, and are dexterous managers enough of the wares and products of that corner with which they content themselves, but will not venture out into the great ocean of knowledge, to survey the riches that nature hath stored other parts with, no less genuine, no less solid, no less useful, than what has fallen to their lot in the admired plenty and sufficiency of their own little spot, which to them contains whatsoever is good in the universe. Those who live thus mewed up within their own contracted territories, and will not look abroad beyond the boundaries that chance, conceit, or laziness has set to their inquiries, but live separate from the notions, discourses and attainments of the rest of mankind, may not amiss be represented by the inhabitants of the Marian islands, who, being separated by a large tract of sea from all communion with the habitable parts of the earth, thought themselves the only people of the world. And though the straitness of the conveniences of life amongst them had never reached so far as to the use of fire, till the Spaniards, not many years since, in their voyages from Acapulco to Manilla brought it amongst them; yet in the want and ignorance of almost all things, they looked upon themselves, even after that the Spaniards had brought amongst them the notice of variety of nations abounding in sciences, arts and conveniences of life, of which they knew nothing, they looked upon themselves, I say, as the happiest and wisest people of the universe.

But for all that, nobody, I think, will imagine them deep naturalists, or solid metaphysicians ; nobody will deem the quickest-sighted amongst them to have very enlarged views in ethics or politics ; nor can any one allow the most capable amongst them to be advanced so far in his understanding as to have any other knowledge but of the few little things of his and the neighbouring islands within his commerce, but far enough from that comprehensive enlargement of mind which adorns a soul devoted to truth, assisted with letters, and a free consideration of the several views and sentiments of thinking men of all sides.

Let not men, therefore, that would have a sight of what every one pretends to be desirous to have a sight of,—truth in its full extent,—narrow and blind their own prospect. Let not men think there is no truth but in the sciences that they study, or the books that they read. To prejudge other men's notions, before we have looked into them is not to show their darkness, but to put out our own eyes. "Try all things, hold fast that which is good," is a divine rule coming from the Father of light and truth, and it is hard to know what other way men can come at truth, to lay hold of it, if they do not dig and search for it as for gold and hid treasure. But he that does so must have much earth and rubbish before he gets the pure metal ; sand, and pebbles, and dross usually lie blended with it. But the gold is nevertheless gold, and will enrich the man that employs his pains to seek and separate it. Neither is there any danger he should be deceived by the mixturè. Every man carries about him a touchstone, if he will make use of it, to distinguish substantial gold from superficial glitterings, truth from appearances. And indeed the use and benefit of this touchstone, which is *natural reason*, is spoiled and lost only by assuming prejudices, overweening presumption, and narrowing our minds. The want of exercising it in the full extent of things intelligible, is that which weakens and extinguishes this noble faculty in us. Trace it and see whether it be not so. The day-labourer in a country village has commonly but a small pittance of knowledge, because his ideas and notions have been confined to the narrow bounds of a poor conversation and employment : the low

mechanic of a country town does somewhat out do him : porters and cobblers of great cities surpass them. A country gentleman who, leaving Latin and learning in the university, removes thence to his mansion house, and associates with neighbours of the same strain, who relish nothing but hunting and a bottle ; with those alone he spends his time, with those alone he converses, and can away with no company whose discourse goes beyond what claret and dissoluteness inspire. Such a patriot, formed in this happy way of improvement, cannot fail, as we see, to give notable decisions upon the bench at quarter-sessions, and eminent proofs of his skill in politics, when the strength of his purse and party have advanced him to a more conspicuous station. To such a one, truly, an ordinary coffee-house gleaner of the city is an arrant statesman, and as much superior to, as a man conversant about Whitehall and the Court is to an ordinary shopkeeper.

To carry this a little farther : here is one muffled up in the zeal and infallibility of his own sect, and will not touch a book or enter into debate with a person that will question any of those things which to him are sacred. Another surveys our differences in religion with an equitable and fair indifference, and so finds probably, that none of them are in everything unexceptionable. These divisions and systems were made by men, and carry the mark of fallible on them ; and in those whom he differs from, and, till he opened his eyes, had a general prejudice against, he meets with more to be said for a great many things than before he was aware of, or could have imagined. Which of these two now is most likely to judge right in our religious controversies, and to be most stored with truth, the mark all pretend to aim at ? All these men that I have instanced in, thus unequally furnished with truth and advanced in knowledge, I suppose, of equal natural parts ; all the odds between them has been the different scope that has been given to their understandings to range in, for the gathering up of information, and furnishing their heads with ideas, notions and observations, whereon to employ their minds and form their understandings.

It will possibly be objected, who is sufficient for

all this? I answer, more than can be imagined. Every one knows what his proper business is, and what, according to the character he makes of himself, the world may justly expect of him; and to answer that, he will find he will have time and opportunity enough to furnish himself, if he will not deprive himself by a narrowness of spirit of those helps that are at hand. I do not say to be a good geographer, that a man should visit every mountain, river, promontory and creek upon the face of the earth, view the buildings, and survey the land everywhere, as if he were going to make a purchase; but yet every one must allow that he shall know a country better that makes often sallies into it and traverses it up and down, than he that like a mill-horse goes still round in the same track, or keeps within the narrow bounds of a field or two that delight him. He that will inquire out the best books in every science, and inform himself of the most material authors of the several sects of philosophy and religion, will not find it an infinite work to acquaint himself with the sentiments of mankind concerning the most weighty and comprehensive subjects. Let him exercise the freedom of his reason and understanding in such a latitude as this, and his mind will be strengthened, his capacity enlarged, his faculties improved; and the light, which the remote and scattered parts of truth will give to one another, will so assist his judgment, that he will seldom be widely out, or miss giving proof of a clear head and a comprehensive knowledge. At least, this is the only way I know to give the understanding its due improvement to the full extent of its capacity, and to distinguish the two most different things I know in the world,—a logical chicaner from a man of reason. Only, he that would thus give the mind its flight, and send abroad his inquiries into all parts after truth, must be sure to settle in his head determined ideas of all that he employs his thoughts about, and never fail to judge himself, and judge unbiassedly of all that he receives from others, either in their writings or discourses. Reverence or prejudice must not be suffered to give beauty or deformity to any of their opinions.

4. Practice and Habits.—We are born with faculties and powers capable almost of anything, such at least as would carry us further than can easily be imagined : but it is only the exercise of those powers which gives us ability and skill in anything, and leads us towards perfection.

A middle-aged ploughman will scarce ever be brought to the carriage and language of a gentleman, though his body be as well-proportioned, and his joints as supple, and his natural parts not any way inferior. The legs of a dancing-master and the fingers of a musician fall as it were naturally, without thought or pains, into regular and admirable motions. Bid them change their parts, and they will in vain endeavour to produce like motions in the members not used to them, and it will require length of time and long practice to attain but some degrees of a like ability. What incredible and astonishing actions do we find rope-dancers and tumblers bring their bodies to ! Not but that sundry in almost all manual arts are as wonderful ; but I name those which the world takes notice of for such, because on that very account they give money to see them. All these admired motions—beyond the reach, and almost the conception, of unpractised spectators,—are nothing but the mere effects of use and industry in men whose bodies have nothing peculiar in them from those of the amazed lookers-on.

As it is in the body, so it is in the mind ; practice makes it what it is. And most even of those excellencies which are looked on as natural endowments, will be found, when examined into more narrowly, to be the product of exercise, and to be raised to that pitch only by repeated actions. Some men are remarked for pleasantness in raillery ; others for apologues and apposite diverting stories. This is apt to be taken for the effect of pure nature ; and that the rather, because it is not got by rules, and those who excel in either of them never purposely set themselves to the study of it as an art to be learnt. But yet it is true, that at first some lucky hit, which took with somebody and gained him commendation, encouraged him to try again, inclined his thoughts and endeavours that way, till at last he insen-

sibly got a facility in it without perceiving how ; and that is attributed wholly to nature which was much more the effect of use and practice. I do not deny that natural disposition may often give the first rise to it, but that never carries a man far without use and exercise ; and it is practice alone that brings the powers of the mind as well as those of the body to their perfection. Many a good poetic vein is buried under a trade, and never produces anything for want of improvement. We see the ways of discourse and reasoning are very different, even concerning the same matter, at court and in the university. And he that will go but from Westminster-hall to the Exchange, will find a different genius and turn in their ways of talking ; and yet one cannot think that all whose lot fell in the city were born with different parts from those who were bred at the university or Inns of Court.

To what purpose all this, but to show that the difference, so observable in men's understandings and parts, does not arise so much from their natural faculties as acquired habits. He would be laughed at, that should go about to make a fine dancer out of a country hedger at past fifty. And he will not have much better success, who shall endeavour at that age to make a man reason well, or speak handsomely, who has never been used to it, though you should lay before him a collection of all the best precepts of logic or oratory. Nobody is made anything by hearing of rules, or laying them up in his memory ; practice must settle the habit of doing without reflecting on the rule, and you may as well hope to make a good painter or musician extempore by a lecture and instruction in the arts of music and painting, as a coherent thinker or strict reasoner by a set of rules, showing him wherein right reasoning consists.

This being so, that defects and weakness in men's understandings, as well as other faculties, come from want of right use of their own minds, I am apt to think the fault is generally mislaid upon nature, and there is often a complaint of want of parts, when the fault lies in want of a due improvement of them. We see men frequently dexterous and sharp enough in making a bargain,

who, if you reason with them about matters of religion, appear perfectly stupid.

5. Ideas.—I will not here, in what relates to the right conduct and improvement of the understanding, repeat again the getting clear and determined ideas, and the employing our thoughts rather about them than about sounds put for them, nor of settling the signification of words which we use with ourselves in the search of truth or with others in discoursing about it. Those hindrances of our understandings in the pursuit of knowledge, I have sufficiently enlarged upon in another place; so that nothing more needs here to be said of those matters.

6. Principles.—There is another fault that stops or misleads men in their knowledge which I have also spoken something of, but yet is necessary to mention here again that we may examine it to the bottom and see the root it springs from; and that is a custom of taking up with principles that are not self-evident and very often not so much as true. It is not unusual to see men rest their opinions upon foundations that have no more certainty and solidity than the propositions built on them and embraced for their sake. Such foundations are these and the like,—namely: the founders or leaders of my party are good men, and therefore their tenets are true; it is the opinion of a sect that is erroneous, therefore it is false; it hath been long received in the world, therefore it is true; or it is new, and therefore false.

These, and many the like, which are by no means the measures of truth and falsehood, the generality of men make the standards by which they accustom their understanding to judge. And thus they falling into a habit of determining truth and falsehood by such wrong measures, it is no wonder they should embrace error for certainty, and be very positive in things they have no ground for.

There is not any who pretends to the least reason, but, when any of these his false maxims are brought to the test, must acknowledge them to be fallible, and such as he will not allow in those that differ from him; and yet,

after he is convinced of this, you shall see him go on in the use of them, and the very next occasion that offers argue again upon the same grounds. Would one not be ready to think that men are willing to impose upon themselves and mislead their own understandings, who conduct them by such wrong measures, even after they see they cannot be relied on? But yet they will not appear so blameable as may be thought at first sight; for I think there are a great many that argue thus in earnest, and do it not to impose on themselves or others. They are persuaded of what they say, and think there is weight in it, though in a like case they have been convinced there is none; but men would be intolerable to themselves, and contemptible to others, if they should embrace opinions without any ground, and hold what they could give no manner of reason for. True or false, solid or sandy, the mind must have some foundation to rest itself upon; and as I have remarked in another place, it no sooner entertains any proposition, but it frequently hastens to some hypothesis to bottom it on; till then it is unquiet and unsettled. So much do our own very tempers dispose us to a right use of our understandings, if we would follow as we should the inclinations of our nature.

In some matters of concernment, especially those of religion, men are not permitted to be always wavering and uncertain. They must embrace and profess some tenets or other; and it would be a shame, nay, a contradiction too heavy for any one's mind to lie constantly under, for him to pretend seriously to be persuaded of the truth of any religion, and yet not to be able to give any reason of his belief, or to say any thing for his preference of this to any other opinion. And therefore they must make use of some principles or other; and those can be no other than such as they have and can manage; and to say they are not in earnest persuaded by them, and do not rest upon those they make use of, is contrary to experience, and to allege that they are not misled when we complain they are.

If this be so, it will be urged, why then do they not rather make use of sure and unquestionable principles,

than rest on such grounds as may deceive them, and will, as is visible, serve to support error as well as truth? To this I answer, the reason why they do not make use of better and surer principles is because they cannot. But this inability proceeds not from want of natural parts (for those few whose case that is are to be excused), but for want of use and exercise. Few men are from their youth accustomed to strict reasoning, and to trace the dependence of any truth, in a long train of consequences, to its remote principles, and to observe its connexion; and he that by frequent practice has not been used to this employment of his understanding, it is no more wonder that he should not, when he is grown into years, be able to bring his mind to it, than that he should not be on a sudden able to grave or design, dance on the ropes, or write a good hand, who has never practised either of them.

Nay, the most of men are so wholly strangers to this, that they do not so much as perceive their want of it. They despatch the ordinary business of their callings by rote, as we say, as they have learnt it; and, if at any time they miss success, they impute it to anything rather than want of thought or skill; that they conclude (because they know no better) they have in perfection. Or if there be any subject that interest or fancy has recommended to their thoughts, their reasoning about it is still after their own fashion; be it better or worse, it serves their turns, and is the best they are acquainted with; and therefore, when they are led by it into mistakes, and their business succeeds accordingly, they impute it to any cross accident, or default of others, rather than to their own want of understanding; that is what no body discovers or complains of in himself. Whatsoever made his business to miscarry, it was not want of right thought and judgment in himself: he sees no such defect in himself, but is satisfied that he carries on his designs well enough by his own reasoning, or at least should have done, had it not been for unlucky traverses not in his power. Thus, being content with this short and very imperfect use of his understanding, he never troubles himself to seek out methods of improving

his mind, and lives all his life without any notion of close reasoning in a continued connexion of a long train of consequences from sure foundations,—such as is requisite for the making out, and clearing most of the speculative truths most men own to believe and are most concerned in. Not to mention here what I shall have occasion to insist on by and by more fully—namely, that in many cases it is not one series of consequences will serve the turn, but many different and opposite deductions must be examined and laid together, before a man can come to make a right judgment of the point in question. What then can be expected from men that neither see the want of any such kind of reasoning as this ; nor, if they do, know they how to set about it, or could perform it ? You may as well set a countryman who scarce knows the figures, and never cast up a sum of three particulars, to state a merchant's long account, and find the true balance of it.

What then should be done in the case ? I answer, we should always remember what I said above, that the faculties of our souls are improved and made useful to us just after the same manner as our bodies are. Would you have a man write or paint, dance or fence well, or perform any other manual operation dexterously and with ease ; let him have ever so much vigour and activity, suppleness and address naturally, yet no body expects this from him unless he has been used to it, and has employed time and pains in fashioning and forming his hand or outward parts to these motions. Just so it is in the mind ; would you have a man reason well, you must use him to it betimes, exercise his mind in observing the connexion of ideas and following them in train. Nothing does this better than mathematics which therefore I think should be taught all those who have the time and opportunity, not so much to make them mathematicians as to make them reasonable creatures ; for though we all call ourselves so, because we are born to it if we please, yet we may truly say nature gives us but the seeds of it ; we are born to be, if we please, rational creatures, but it is use and exercise only that makes us so, and we are indeed so no further than industry and application had carried us. And therefore, in ways of reasoning which men have

not been used to, he that will observe the conclusions they take up must be satisfied they are not all rational.

This has been the less taken notice of because every one in his private affairs, uses some sort of reasoning or other, enough to denominate him reasonable. But the mistake is, that he that is found reasonable in one thing is concluded to be so in all, and to think or say otherwise is thought so unjust an affront, and so senseless a censure, that no body ventures to do it. It looks like the degradation of a man below the dignity of his nature. It is true that he that reasons well in any one thing has a mind naturally capable of reasoning well in others, and to the same degree of strength and clearness, (and possibly much greater,) had his understanding been so employed. But it is as true that he, who can reason well to-day about one sort of matters, cannot at all reason to-day about others, though perhaps a year hence he may. But wherever a man's rational faculty fails him and will not serve him to reason, there we cannot say he is rational, how capable soever he may be by time and exercise to become so.

Try in men of low and mean education, who have never elevated their thoughts above the spade and the plough, nor looked beyond the ordinary drudgery of a day-labourer. Take the thoughts of such an one, used for many years to one track, out of that narrow compass he has been all his life confined to, you will find him no more capable of reasoning than almost a perfect natural. Some one or two rules, on which their conclusions immediately depend, you will find in most men have governed all their thoughts; these, true or false, have been the maxims they have been guided by: take these from them, and they are perfectly at a loss, their compass and pole star then are gone, and their understanding is perfectly at a nonplus. And therefore they either immediately return to their old maxims again, as the foundations of all truth to them, notwithstanding all that can be said to show their weakness; or, if they give them up to their reasons, they with them give up all truth and further inquiry, and think there is no such thing as certainty. For if you would enlarge their thoughts and settle them upon more remote and surer principles, they either

cannot easily apprehend them, or, if they can, know not what use to make of them, for long deductions from remote principles are what they have not been used to and cannot manage.

What then, can grown men never be improved or enlarged in their understandings? I say not so; but this I think I may say, that it will not be done without industry and application, which will require more time and pains than grown men, settled in their course of life, will allow to it, and therefore very seldom is done. And this very capacity of attaining it by use and exercise only, brings us back to that which I laid down before,—that it is only practice that improves our minds as well as bodies, and we must expect nothing from our understandings any further than they are perfected by habits.

The Americans are not all born with worse understandings than the Europeans, though we see none of them have such reaches in the arts and sciences. And among the children of a poor countryman, the lucky chance of education and getting into the world, gives one infinitely the superiority in parts over the rest, who, continuing at home, had continued also just of the same size with his brethren.

He that has to do with young scholars, especially in mathematics, may perceive how their minds open by degrees, and how it is exercise alone that opens them. Sometimes they will stick a long time at a part of a demonstration, not for want of will and application, but really for want of perceiving the connexion of two ideas that, to one whose understanding is more exercised, is as visible as anything can be. The same would be with a grown man beginning to study mathematics; the understanding for want of use often sticks in very plain way, and he himself that is so puzzled, when he comes to see the connexion, wonders what it was he stuck at in a case so plain.

7. Mathematics.—I have mentioned mathematics as a way to settle in the mind a habit of reasoning closely and in train; not that I think it necessary that all men should be deep mathematicians, but that, having got the way of

reasoning, which that study necessarily brings the mind to, they might be able to transfer it to other parts of knowledge, as they shall have occasion. For in all sorts of reasoning every single argument should be managed as a mathematical demonstration, the connexion and dependence of ideas should be followed, till the mind is brought to the source on which it bottoms, and observes the coherence all along; though, in proofs of probability, one such train is not enough to settle the judgment, as in demonstrative knowledge.

Where a truth is made out by one demonstration, there needs no further inquiry; but in probabilities, where there wants demonstration to establish the truth beyond doubt, there it is not enough to trace one argument to its source, and observe its strength and weakness, but all the arguments, after having been so examined on both sides, must be laid in balance one against another, and upon the whole the understanding determine its assent.

This is a way of reasoning the understanding should be accustomed to, which is so different from what the illiterate are used to, that even learned men sometimes seem to have very little or no notion of it. Nor is it to be wondered, since the way of disputing in the schools leads them quite away from it, by insisting on one topical argument, by the success of which the truth or falsehood of the question is to be determined and victory adjudged to the opponent or defendant; which is all one as if one should balance an account by one sum, charged and discharged, when there are an hundred others to be taken into consideration.

This, therefore, it would be well if men's minds were accustomed to, and that early, that they might not erect their opinions upon one single view, when so many others are requisite to make up the account, and must come into the reckoning before a man can form a right judgment. This would enlarge their minds and give a due freedom to their understandings, that they might not be led into error by presumption, laziness or precipitancy. For I think nobody can approve such a conduct of the understanding as should mislead it from truth, though it be ever so much in fashion to make use of it.

To this perhaps it will be objected, that to manage the understanding as I propose, would require every man to be a scholar, and to be furnished with all the materials of knowledge and exercised in all the ways of reasoning. To which I answer, that it is a shame for those that have time and the means to attain knowledge, to want any helps or assistance for the improvement of their understandings that are to be got ; and to such I would be thought here chiefly to speak. Those methinks, who, by the industry and parts of their ancestors, have been set free from a constant drudgery to their backs and their bellies, should bestow some of their spare time on their heads, and open their minds by some trials and essays, in all the sorts and matters of reasoning. I have before mentioned mathematics, wherein algebra gives new helps and views to the understanding. If I propose these, it is not, as I said, to make every man a thorough mathematician or a deep algebraist ; but yet I think the study of them is of infinite use, even to grown men : *First*, by experimentally convincing them that to make any one reason well it is not enough to have parts where-with he is satisfied and that serve him well enough in his ordinary course. A man in those studies will see, that however good he may think his understanding, yet in many things, and those very visible, it may fail him. This would take off that presumption that most men have of themselves in this part, and they would not be so apt to think their minds wanted no helps to enlarge them, that there could be nothing added to the acuteness and penetration of their understandings.

Secondly, the study of mathematics would show them the necessity there is in reasoning, to separate all the distinct ideas, and see the habitudes that all those concerned in the present inquiry have to one another, and to lay by those which relate not to the proposition in hand and wholly to leave them out of the reckoning. This is that which in other subjects, besides quantity, is what is absolutely requisite to just reasoning, though in them it is not so easily observed nor so carefully practised. In those parts of knowledge where it is thought demonstration has nothing to do, men reason as it were in the lump ; and if, upon a

summary and confused view or upon a partial consideration, they can raise the appearance of a probability, they usually rest content; especially, if it be in a dispute where every little straw is laid hold on, and everything that can but be drawn in any way to give colour to the argument is advanced with ostentation. But that mind is not in a posture to find the truth, that does not distinctly take all the parts asunder, and, omitting what is not at all to the point, draw a conclusion from the result of all the particulars which any way influence it. There is another no less useful habit to be got by an application to mathematical demonstrations, and that is, of using the mind to a long train of consequences: but, having mentioned that already, I shall not again here repeat it.

As to men whose fortunes and time are narrower, what may suffice them is not of that vast extent as may be imagined, and so comes not within the objection. Nobody is under an obligation to know everything. Knowledge and science in general is the business only of those who are at ease and leisure. Those who have particular callings ought to understand them; and it is no unreasonable proposal, nor impossible to be compassed, that they should think and reason right about what is their daily employment. This one cannot think them incapable of, without levelling them with the brutes, and charging them with a stupidity below the rank of rational creatures.

8. Religion.—Besides his particular calling for the support of this life, every one has a concern in a future life, which he is bound to look after. This engages his thoughts in religion, and here it mightily lies upon him to understand and reason right. Men, therefore, cannot be excused from understanding the words, and framing the general notions, relating to religion right. The one day of seven, besides other days of rest, allows in the Christian world time enough for this (had they no other idle hours), if they would but make use of these vacancies from their daily labour, and apply themselves to an improvement of knowledge with as much diligence, as they often do to a great many other things that are useless, and had but those that would enter

them, according to their several capacities, in a right way to this knowledge. The original make of their minds is like that of other men, and they would be found not to want understanding fit to receive the knowledge of religion, if they were a little encouraged and helped in it as they should be. For there are instances of very mean people who have raised their minds to a great sense and understanding of religion; and though these have not been so frequent as could be wished, yet they are enough to clear that condition of life from a necessity of gross ignorance, and to shew that more might be brought to be rational creatures and Christians (for they can hardly be thought really to be so who, wearing the name, know not so much as the very principles of that religion), if due care were taken of them. For, if I mistake not, the peasantry lately in France (a rank of people under a much heavier pressure of want and poverty than the day-labourers in England) of the reformed religion understood it much better, and could say more for it, than those of a higher condition among us.

But if it shall be concluded that the meaner sort of people must give themselves up to a brutish stupidity in the things of their nearest concernment,—which I see no reason for,—this excuses not those of a freer fortune and education, if they neglect their understandings, and take no care to employ them as they ought and set them right in the knowledge of those things for which principally they were given them. At least those whose plentiful fortunes allow them the opportunities and helps of improvement are not so few, but that it might be hoped great advancements might be made in knowledge of all kinds, especially in that of the greatest concern and largest views, if men would make a right use of their faculties and study their own understandings.

9. Ideas.—Outward corporeal objects that constantly importune our senses, and captivate our appetites, fail not to fill our heads with lively and lasting ideas of that kind. Here the mind needs not be set upon getting greater store; they offer themselves fast enough, and are usually entertained in such plenty and lodged so carefully, that the mind

wants room or attention for others that it has more use and need of. To fit the understanding, therefore, for such reasoning as I have been above speaking of, care should be taken to fill it with moral and more abstract ideas; for these not offering themselves to the senses, but being to be framed to the understanding, people are generally so neglectful of a faculty they are apt to think wants nothing, that I fear most men's minds are more unfurnished with such ideas than is imagined. They often use the words, and how can they be suspected to want the ideas? What I have said in the third Book of my Essay, will excuse me from any other answer to this question.

But to convince people of what moment it is to their understandings to be furnished with such abstract ideas, (steady and settled in them) give me leave to ask how any one shall be able to know whether he be obliged to be just, if he has not established ideas in his mind of obligation and of justice,—since knowledge consists in nothing but the perceived agreement or disagreement of those ideas? And so of all others the like which concern our lives and manners. And if men do find a difficulty to see the agreement or disagreement of two angles which lie before their eyes, unalterable in a diagram, how utterly impossible will it be to perceive it in ideas that have no other sensible objects to represent them to the mind but sounds with which they have no manner of conformity, and therefore had need to be clearly settled in the mind themselves, if we would make any clear judgment about them! This, therefore, is one of the first things the mind should be employed about in the right conduct of the understanding, without which it is impossible it should be capable of reasoning right about those matters. But in these, and all other ideas, care must be taken that they harbour no inconsistencies, and that they have a real existence where real existence is supposed, and are not mere chimeras with a supposed existence.

• **10. Prejudice**—Every one is forward to complain of the prejudices that mislead other men or parties, as if he were

free, and had none of his own. This being objected on all sides, it is agreed that it is a fault and an hindrance to knowledge. What now is the cure? No other but this, that every man should let alone others' prejudices and examine his own. No body is convinced of his by the accusation of another; he recriminates by the same rule, and is clear. The only way to remove this great cause of ignorance and error out of the world is, for every one impartially to examine himself. If others will not deal fairly with their own minds, does that make any errors truths, or ought it to make me in love with them and willing to impose on myself? If others love cataracts on their eyes, should that hinder me from couching of mine as soon as I can? Every one declares against blindness; and yet who almost is not fond of that which dims his sight, and keeps the clear light out of his mind, which should lead him into truth and knowledge? False or doubtful positions, relied upon as unquestionable maxims, keep those in the dark from truth, who build on them. Such are usually the prejudices imbibed from education, party, reverence, fashion, interest, &c. This is the mote which every one sees in his brother's eyes, but never regards the beam in his own. For who is there almost that is ever brought fairly to examine his own principles, and see whether they are such as will bear the trial? But yet this should be one of the first things every one should set about, and be scrupulous in, who would rightly conduct his understanding in the search of truth and knowledge.

To those who are willing to get rid of this great hindrance of knowledge (for to such only I write), to those who would shake off this great and dangerous impostor prejudice, who dresses up falsehood in the likeness of truth, and so dexterously hoodwinks men's minds as to keep them in the dark with a belief that they are more in the light than any that do not see with their eyes,—I shall offer this one mark whereby prejudice may be known. He that is strongly of any opinion, must suppose (unless he be self-condemned) that his persuasion is built upon good grounds; and that his assent is no greater than what the evidence of the truth he holds forces

him to ; and that they are arguments, and not inclination or fancy, that make him so confident and positive in his tenets. Now if, after all his profession, he cannot bear any opposition to his opinion, if he cannot so much as give a patient hearing, much less examine and weigh the arguments on the other side—does he not plainly confess it is prejudice governs him? And it is not the evidence of truth, but some lazy anticipation, some beloved presumption that he desires to rest undisturbed in. For if what he holds be, as he gives out, well fenced with evidence, and he sees it to be true, what need he fear to put it to the proof? If his opinion be settled upon a firm foundation,—if the arguments that support it and have obtained his assent be clear, good, and convincing,—why should he be shy to have it tried whether they be proof or not? He whose assent goes beyond his evidence, owes this excess of his adherence only to prejudice; and does in effect own it, when he refuses to hear what is offered against it,—declaring thereby that it is not evidence he seeks, but the quiet enjoyment of the opinion he is fond of, with a forward condemnation of all that may stand in opposition to it, unheard and unexamined; which, what is it but prejudice? “Qui aequum statuerit parte inauditâ alterâ, etiam si aequum statuerit, haud aequus fuerit.” He that would acquit himself in this case as a lover of truth, not giving way to any preoccupation or bias that may mislead him, must do two things that are not very common nor very easy.

11. Indifferency—*First* he must not be in love with any opinion, or wish it to be true, till he knows it to be so, and then he will not need to wish it. For nothing that is false can deserve our good wishes, nor a desire that it should have the place and force of truth; and yet nothing is more frequent than this. Men are fond of certain tenets upon no other evidence but respect and custom, and think they must maintain them or all is gone; though they have never examined the ground they stand on, nor have ever made them out to themselves, or can make them out to others. We should contend earnestly for the truth, but we should first be sure that it is truth, or else we fight

against God, who is the God of truth, and do the work of the devil, who is the father and propagator of lies. And our zeal, though ever so warm, will not excuse us; for this is plainly prejudice.

12. Examine—*Secondly*, he must do that which he will find himself very averse to, as judging the thing unnecessary or himself incapable of doing it. He must try whether his principles be certainly true or not, and how far he may safely rely upon them. This, whether fewer have the heart or the skill to do, I shall not determine; but this I am sure, this is that which every one ought to do who professes to love truth and would not impose upon himself—which is a surer way to be made a fool of than by being exposed to the sophistry of others. The disposition to put any cheat upon ourselves works constantly, and we are pleased with it, but are impatient of being bantered or misled by others. The inability I here speak of is not any natural defect that makes men incapable of examining their own principles. To such, rules of conducting their understandings are useless; and that is the case of very few. The great number is of those whom the ill habit of never exerting their thoughts has disabled. The powers of their minds are starved by disuse, and have lost that reach and strength which nature fitted them to receive from exercise. Those who are in a condition to learn the first rules of plain arithmetic, and could be brought to cast up an ordinary sum, are capable of this, if they had but accustomed their minds to reasoning. But they that have wholly neglected the exercise of their understandings in this way, will be very far at first from being able to do it, and as unfit for it as one unpractised in figures to cast up a shopbook, and perhaps think it as strange to be set about it. And yet it must nevertheless be confessed to be a wrong use of our understanding to build our tenets (in things where we are concerned to hold the truth) upon principles that may lead us into error. We take our principles at haphazard, upon trust, and without ever having examined them; and then believe a whole system, upon a presumption that they are true

and solid : and what is all this but childish, shameful, senseless credulity ?

. In these two things, viz., an equal indifferency for all truth—I mean the receiving it in the love of it, as truth, but not loving it for any other reason before we know it to be true,—and in the examination of our principles, (and not receiving any for such, nor building on them till we are fully convinced as rational creatures, of their solidity, truth, and certainty,) consists that freedom of the understanding which is necessary to a rational creature, and without which it is not truly an understanding. It is conceit, fancy, extravagance, anything rather than understanding, if it must be under the constraint of receiving and holding opinions by the authority of anything but their own not (fancied, but perceived) evidence. This was rightly called imposition, and is of all other the worst and most dangerous sort of it. For we impose upon ourselves,—which is the strongest imposition of all others,—and we impose upon ourselves in that part which ought with the greatest care to be kept free from all imposition. The world is apt to cast great blame on those who have an indifferency for opinions, especially in religion. I fear this is the foundation of great error and worse consequences. To be indifferent which of two opinions is true, is the right temper of the mind that preserves it from being imposed on, and disposes it to examine with that indifferency till it has done its best to find the truth ; and this is the only direct and safe way to it. But to be indifferent whether we embrace falsehood or truth is the great road to error. Those who are not indifferent which opinion is true are guilty of this ; they suppose, without examining, that what they hold is true, and then think they ought to be zealous for it. Those, it is plain by their warmth and eagerness, are not indifferent for their own opinions, but methinks are very indifferent whether they be true or false ; since they cannot endure to have any doubts raised or objections made against them ; and it is visible they never have made any themselves ; and so, never having examined them, know not nor are concerned, as they should be,

to know whether they be true or false.

These are the common and most general miscarriages which I think men should avoid or rectify in a right conduct of their understandings, and should be particularly taken care of in education. The business whereof in respect of knowledge is not, as I think, to perfect a learner in all or any one of the sciences, but to give his mind that freedom, that disposition, and those habits that may enable him to attain any part of knowledge he shall apply himself to, or stand in need of, in the future course of his life.

This, and this only is well principling, and not the instilling a reverence and veneration for certain dogmas under the specious title of principles,—which are often so remote from that truth and evidence which belongs to principles, that they ought to be rejected as false and erroneous; and often cause men so educated when they come abroad into the world, and find they cannot maintain the principles so taken up and rested in, to cast off all principles and turn perfect sceptics, regardless of knowledge and virtue.

There are several weaknesses and defects in the understanding, either from the natural temper of the mind or ill habits taken up, which hinder it in its progress to knowledge. Of these there are as many, possibly, to be found, if the mind were thoroughly studied, as there are diseases of the body, each whereof clogs and disables the understanding to some degree, and therefore deserves to be looked after and cured. I shall set down some few to excite men, especially those who make knowledge their business, to look into themselves, and observe whether they do not indulge some weaknesses, allow some miscarriages in the management of their intellectual faculty which is prejudicial to them in the search of truth.

18. Observation.—Particular matters of fact are the undoubted foundations on which our civil and natural knowledge is built; the benefit the understanding makes of them is to draw from them conclusions which may be as standing rules of knowledge, and consequently of practice. The mind often makes not that benefit it should, of the

information it receives from the accounts of civil or natural historians, by being too forward or too slow in making observations on the particular facts recorded in them.

There are those who are very assiduous in reading, and yet do not much advance their knowledge by it. They are delighted with the stories that are told, and perhaps can tell them again, for they make all they read nothing but history to themselves ; but not reflecting on it, not making to themselves observations from what they read, they are very little improved by all that crowd of particulars that either pass through, or lodge themselves in their understandings. They dream on in a constant course of reading ; and cramming themselves but not digesting anything, it produces nothing but a heap of crudities.

If their memories retain well, one may say, they have the *materials* of knowledge ; but like those for building, they are of no advantage if there be no other use made of them but to let them lie heaped up together. Opposite to these there are others, who lose the improvement they should make of matters of fact by a quite contrary conduct. They are apt to draw general conclusions, and raise axioms from every particular they meet with. These make as little true benefit of history as the other ; nay, being of forward and active spirits, receive more harm by it, it being of worse consequence to steer one's thoughts by a wrong rule than to have none at all, error doing to busy men much more harm than ignorance to the slow and sluggish. Between these, those seem to do best who taking material and useful hints, sometimes from single matters of fact, carry them in their minds to be judged of by what they shall find in history to confirm or reverse their imperfect observations ; which may be established into rules fit to be relied on when they are justified by a sufficient and wary induction of particulars. He that makes no such reflections on what he reads, only loads his mind with a rhapsody of tales, fit in winter nights for the entertainment of others ; and he that will improve every matter of fact into a maxim, will abound in contrary observations that can be of no other use but to perplex and pudder him if he compares them, or else to misguide him

if he gives himself up to the authority of that which for its novelty or for some other fancy best pleases him.

14. Bias.—Next to these we may place those who suffer their own natural tempers and passions they are possessed with, to influence their judgments, especially of men and things that may any way relate to their present circumstances and interest. Truth is all simple, all pure, will bear no mixture of anything else with it. It is rigid and inflexible to any bye-interests, and so should the understanding be, whose use and excellency lie in conforming itself to it. To think of every thing just as it is in itself, is the proper business of the understanding, though it be not that which men always employ it to. This all men at first hearing allow is the right use every one should make of his understanding. Nobody will be at such an open defiance with common sense, as to profess that we should not endeavour to know and think of things as they are in themselves, and yet there is nothing more frequent than to do the contrary; and men are apt to excuse themselves, and think they have reason to do so, if they have but a pretence that it is for God, or a good cause; that is, in effect, for themselves, their own persuasion, or party; for those in their turns the several sects of men, especially in matters of religion, entitle God and a good cause. But God requires not men to wrong or misuse their faculties for him, nor to lie to others or themselves for his sake,—which they purposely do, who will not suffer their understandings to have right conceptions of the things proposed to them, and designedly restrain themselves from having just thoughts of everything, as far as they are concerned to inquire. And as for a good cause, that needs not such ill helps; if it be good, truth will support it, and it has no need of fallacy or falsehood.

15. Arguments.—Very much of kin to this is the hunting after arguments to make good one side of a question, and wholly to neglect and refuse those which favour the other side. What is this but wilfully to misguide the understanding? And it is so far from giving truth its

due value, that it wholly debases it : men espouse opinions that best comfort with their power, profit, or credit, and then seek arguments to support them. Truth, lighted upon this way, is of no more avail to us than error ; for what is so taken up by us may be false as well as true, and he has not done his duty who has thus stumbled upon truth in his way to preferment.

There is another but more innocent way of collecting arguments very familiar among bookish men : which is to furnish themselves with the arguments they meet with *pro* and *con* in the questions they study. This helps them not to judge right nor argue strongly, but only to talk copiously on either side without being steady and settled in their own judgments : for such arguments gathered from other men's thoughts, floating only in the memory, are there ready indeed to supply copious talk with some appearance of reason, but are far from helping us to judge right. Such variety of arguments only distract the understanding that relies on them, unless it has gone farther than such a superficial way of examining ; this is to quit truth for appearance, only to serve our vanity. The sure and only way to get true knowledge is to form in our minds clear settled notions of things, with names annexed to those determined ideas. These we are to consider with their several relations and habitudes, and not amuse ourselves with floating names and words of indetermined signification which we can use in several senses to serve a turn. It is in the perception of the habitudes and respects our ideas have one to another, that real knowledge consists ; and when a man once perceives how far they agree or disagree one with another, he will be able to judge of what other people say, and will not need to be led by the arguments of others, which are many of them nothing but plausible sophistry. This will teach him to state the question right, and see whereon it turns ; and thus he will stand upon his own legs, and know by his own understanding. Whereas by collecting and learning arguments by heart, he will be but a retainer to others ; and when any one questions the foundations they are built upon, he will be at a nonplus, and be fain to give up his implicit knowledge.

16. Haste.—Labour for labour-sake is against nature. The understanding, as well as all the other faculties, chooses always the shortest way to its end, would presently obtain the knowledge it is about, and then set upon some new inquiry. But this, whether laziness or haste, often misleads it and makes it content itself with improper ways of search, and such as will not serve the turn: sometimes it rests upon testimony, when testimony of right has nothing to do; because it is easier to believe than to be scientifically instructed: sometimes it contents itself with one argument, and rests satisfied with that, as it were a demonstration, whereas the thing under proof is not capable of demonstration, and therefore must be submitted to the trial of probabilities, and all the material arguments *pro* and *con* be examined and brought to a balance. In some cases the mind is determined by probable topics in inquiries where demonstration may be had. All these, and several others, which laziness, impatience, custom, and want of use and attention lead men into, are misapplications of the understanding in the search of truth. In every question, the nature and manner of the proof it is capable of should be considered, to make our inquiry such as it should be. This would save a great deal of frequently misemployed pains, and lead us sooner to that discovery and possession of truth we are capable of. The multiplying variety of arguments,—especially frivolous ones, such as are all that are merely verbal,—is not only lost labour, but cumpers the memory to no purpose, and serves only to hinder it from seizing and holding of the truth in all those cases which are capable of demonstration. In such a way of proof, the truth and certainty is seen, and the mind fully possesses itself of it, when in the other way of assent, it only hovers about it, is amused with uncertainties. In this superficial way, indeed, the mind is capable of more variety of plausible talk, but is not enlarged as it should be, in its knowledge. It is to this same haste and impatience of the mind also, that a not due tracing of the arguments to their true foundation is owing; men see a little, presume a great deal, and so jump to the conclusion. This is a short way to fancy and conceit, and (if firmly

embraced) to ^{opiniatry} ~~opiniatry~~, but is certainly the farthest way, about to knowledge. For he that will know, must by the connection of the proofs see the truth and the ground it stands on; and therefore if he has for haste skipt over what he should have examined, he must begin and go over all again, or else he will never come to knowledge.

17. Desultory.—Another fault of as ill consequence as this, which proceeds also from laziness, with a mixture of vanity, is the skipping from one sort of knowledge to another. Some men's tempers are quickly weary of any one thing. Constancy and assiduity is what they cannot bear: the same study long continued in is as intolerable to them, as the appearing long in the same clothes or fashion is to a court-lady.

18. Smattering.—Others, that they may seem universally knowing, get a little smattering in everything. Both these may fill their heads with superficial notions of things but are very much out of the way of attaining truth or knowledge.

19. Universality.—I do not here speak against the taking a taste of every sort of knowledge; it is certainly very useful and necessary to form the mind; but then it must be done in a different way and to a different end. Not for talk and vanity to fill the head with shreds of all kinds, that he who is possessed of such a frippery, may be able to match the discourses of all he shall meet with, as if nothing could come amiss to him, and his head was so well stored a magazine that nothing could be proposed which he was not master of, and was readily furnished to entertain any one on. This is an excellency indeed, and a great one too, to have a real and true knowledge in all or most of the objects of contemplation. But it is what the mind of one and the same man can hardly attain unto, and the instances are so few of those who have in any measure approached towards it that I know not whether they are to be proposed as examples in the ordinary conduct of the understanding. For a man to understand fully the business

of his particular calling in the commonwealth, and of religion, which is his calling as he is a man in the world, is usually enough to take up his whole time ; and there are few that inform themselves in these, which is every man's proper and peculiar business, so to the bottom as they should do. But though this be so, and there are very few men that extend their thoughts towards universal knowledge, yet I do not doubt but if the right way were taken, and the methods of inquiry were ordered as they should be, men of little business and great leisure might go a great deal farther in it than is usually done.

To return to the business in hand, the end and use of a little insight in those parts of knowledge which are not a man's proper business, is to accustom our minds to all sorts of ideas and the proper ways of examining their habitudes and relations. This gives the mind a freedom, and the exercising the understanding in the several ways of inquiry and reasoning which the most skilful have made use of, teaches the mind sagacity and wariness, and a suppleness to apply itself more closely and dexterously to the bents and turns of the matter in all its researches. Besides, this universal taste of all the sciences, with an indifferency before the mind is possessed with any one in particular, and grown into love and admiration of what is made its darling, will prevent another evil very commonly to be observed in those who have from the beginning been seasoned only by one part of knowledge. Let a man be given up to the contemplation of one sort of knowledge, and that will become every thing. The mind will take such a tincture from a familiarity with what object, that everything else, how remote soever, will be brought under the same view. A metaphysician will bring ploughing and gardening immediately to abstract notions ; the history of nature shall signify nothing to him. An alchemist, on the contrary, shall reduce divinity to the maxims of his laboratory : explain morality by sal, sulphur, and mercury and allegorise the scripture itself, and the sacred mysteries thereof, into the philosopher's stone. And I heard once a man, who had a more than ordinary excellency in music, seriously accommodate Mose's seven days of the first week to the notes of music, as if from thence had been taken

the measure and method of the creation. It is of no small consequence to keep the mind from such a possession, which I think is best done by giving it a fair and equal view of the whole intellectual world, wherein it may see the order, rank, and beauty of the whole, and give a just allowance to the distinct provinces of the several sciences in the due order and usefulness of each of them.

If this be that which old men will not think necessary, nor be easily brought to, it is fit at least that it should be practised in them breeding of the young. The business of education, as I have already observed, is not, as I think to make them perfect in any one of the sciences, but so to open and dispose their minds as may best make them capable of any when they shall apply themselves to it. If men are for a long time accustomed only to one sort or method of thoughts, their minds grow stiff in it, and do not readily turn to another. It is therefore to give them this freedom, that I think they should be made to look into all sorts of knowledge, and exercise their understandings in so wide a variety and stock of knowledge. But I do not propose it as a variety and stock of knowledge but a variety and freedom of thinking, as an increase of the powers and activity of the mind, not as an enlargement of its possessions.

20. Reading—This is that which I think great readers are apt to be mistaken in. Those who have read of everything are thought to understand everything too; but it is not always so. Reading furnishes the mind only with materials of knowledge, it is thinking makes what we read ours. We are of the ruminating kind, and it is not enough to cram ourselves with a great load of collections; unless we chew them over again they will not give us strength and nourishment. There are indeed in some writers visible instances of deep thoughts, close and acute reasoning, ideas well pursued. The light, these would give would be of great use, if their readers would observe and imitate them; all the rest at best are but particulars fit to be turned into knowledge. But that can be done only by our own meditation and examining the reach, force,

and coherence of what is said ; and then as far as we apprehend and see the connection of ideas, so far it is ours ; without that it is but so much loose matter floating in our brain. The memory may be stored, but the judgment is little better, and the stock of knowledge not increased, by being able to repeat what others have said or produce the arguments we have found in them. Such a knowledge as this is but knowledge by hearsay, and the ostentation of it is at best but talking by rote, and very often upon weak and wrong principles. For all that is to be found in books is not built upon true foundations, nor always rightly deduced from the principles it is pretended to be built on. Such an examen as is requisite to discover, that every reader's mind is not forward to make, especially in those who have given themselves up to a party, and only hunt for what they can scrape together that may favour and support the tenets of it. Such men wilfully exclude themselves from truth and from all true benefit to be received by reading. Others of more indifferency often want attention and industry. The mind is backward in itself to be at the pains to trace every argument to its original, and to see upon what basis it stands, and how firmly ; but yet it is this that gives so much the advantage to one man more than another in reading. The mind should by severe rules, be tied down to this, at first, uneasy task ; use and exercise will give it facility. So that those who are accustomed to it readily, as it were with one cast of the eye, take a view of the argument, and presently, in most cases, see where it bottoms. Those who have got this faculty, one may say, have got the true key of books, and the clue to lead them through the mizmaze of a variety of opinions and authors to truth and certainty. This young beginners should be entered in, and showed the use of, that they might profit by their reading. Those who are strangers to it will be apt to think it too great a clog in the way of men's studies ; and they will suspect they shall make but small progress if in the books they read, they must stand to examine and unravel every argument and follow it step by step up to its original.

I answer, this is a good objection, and ought to weigh

with those whose reading is designed for much talk and little knowledge, and I have nothing to say to it. But I am here inquiring into the conduct of the understanding in its progress towards knowledge ; and to those who aim at that, I may say, that he who fair and softly goes steadily forward in a course that points right, will sooner be at his journey's end, than he that runs after every one he meets, though he gallop all day full speed.

To which let me add, that this way of thinking on and profiting by what we read will be a clog and rub to any one only in the beginning : when custom and exercise has made it familiar, it will be despatched on most occasions, without resting or interruption in the course of our reading. The motions and views of a mind exercised that way are wonderfully quick ; and a man, used to such sort of reflections sees as much at one glimpse as would require a long discourse to lay before another, and make out in an entire and gradual deduction. Besides that, when the first difficulties are over, the delight and sensible advantage it brings mightily encourages and enlivens the mind in reading, which without this is very improperly called study.

21. Intermediate principles.—As a help to this, I think it may be proposed, that for the saving the long progression of the thoughts to remote and first principles in every case, the mind should provide itself several stages ; that is to say, intermediate principles which it might have recourse to in the examining those positions that come in its way. These, though they are not self-evident principles, yet if they have been made out from them by a wary and unquestionable deduction, may be depended on as certain and infallible truths, and serve as unquestionable truths to prove other points depending on them by a nearer and shorter view than remote and general maxims. These may serve as landmarks to show what lies in the direct way of truth, or is quite beside it. And thus mathematicians do, who do not in every new problem run it back to the first axioms, through all the whole train of intermediate propositions. Certain theorems that they have settled to themselves upon sure demonstration, serve to resolve

to them multitudes of propositions which depend on them; and are as firmly made out from thence as if the mind went afresh over every link of the whole chain that ties them to first self-evident principles. Only in other sciences great care is to be taken that they establish those intermediate principles with as much caution, exactness, and indifference, as mathematicians use in the settling any of their great theorems. When this is not done, but men take up the principles in this or that science upon credit, inclination, interest, &c. in haste, without due examination and most unquestionable proof, they lay a trap for themselves, and as much as in them lies, captivate their understandings to mistake, falsehood, and error.

22. Partiality.—As there is a partiality to opinions, which, as we have already observed, is apt to mislead the understanding, so there is often a partiality to studies which is prejudicial also to knowledge and improvement. Those sciences which men are particularly versed in they are apt to value and extol, as if that part of knowledge which every one has acquainted himself with, were that alone which was worth the having, and all the rest were idle and empty amusements, comparatively of no use or importance. This is the effect of ignorance and not knowledge, the being vainly puffed up with a flatulency arising from a weak and narrow comprehension. It is not amiss that every one should relish the science that he has made his peculiar study; a view of its beauties and a sense of its usefulness carries a man on with the more delight and warmth in the pursuit and improvement of it. But the contempt of all other knowledge, as if it were nothing in comparison of Law or Physic, of Astronomy or Chemistry, —or perhaps some yet meaner part of knowledge, wherein I have got some smattering, or am somewhat advanced,—is not only the mark of a vain or little mind, but does this prejudice in the conduct of the understanding, that it coops it up within narrow bounds, and hinders it looking abroad into other provinces of the intellectual world, —more beautiful possibly, and more fruitful than that which it had till then laboured in; wherein it might find,

besides new knowledge, ways or hints whereby it might be enabled the better to cultivate its own.

23. Theology.—There is indeed one science (as they are now distinguished) incomparably above all the rest, where it is not by corruption narrowed into a trade or faction for mean or ill ends and secular interests ; I mean theology, which, containing the knowledge of God and his creatures, our duty to him and our fellow-creatures, and a view of our present and future state,—is the comprehension of all other knowledge directed to its true end ; *i. e.* the honour and veneration of the Creator and the happiness of mankind. This is that noble study which is every man's duty, and every one that can be called a rational creature is capable of. The works of nature and the words of revelation display it to mankind in characters so large and visible, that those who are not quite blind may in them read and see the first principles and most necessary parts of it, and from thence, as they have time and industry, may be enabled to go on to the more abstruse parts of it, and penetrate into those infinite depths filled with the treasures of wisdom and knowledge. This is that science which would truly enlarge men's minds were it studied or permitted to be studied everywhere with that freedom, love of truth and charity, which it teaches ; and were not made, contrary to its nature, the occasion of strife, faction, malignity, and narrow impositions. I shall say no more here of this, but that it is undoubtedly a wrong use of my understanding to make in the rule and measure of another man's ; a use which it is neither fit for, nor capable of.

24. Partiality.—This partiality, where it is not permitted an authority to render all other studies insignificant or contemptible, is often indulged so far as to be relied upon and made use of in other parts of knowledge to which it does not at all belong, and wherewith it has no manner of affinity. Some men have so used their heads to mathematical figures that giving a preference to the methods of that science, they introduce lines and diagrams into their study of divinity or politic inquiries, as if nothing

could be known without them ; and others, accustomed to retired speculations, run natural philosophy into metaphysical notions and the abstract generalities of logic : and, how often may one meet with religion and morality treated of in the terms of the laboratory, and thought to be improved by the methods and notions of chymistry. But he that will take care of the conduct of his understanding, to direct it right to the knowledge of things, must avoid those undue mixtures, and not—by a fondness for what he has found useful and necessary in one,—transfer it to another science, where it serves only to perplex and confound the understanding. It is a certain truth that “*res nolunt male administrari*” ; it is no less certain, “*res nolunt male intelligi*.” Things themselves are to be considered as they are in themselves, and then they will show us in what way they are to be understood. For to have right conceptions about them we must bring our understandings to the inflexible nature and unalterable relations of things, and not endeavour to bring things to any preconceived notions of our own.

There is another partiality very commonly observable in men of study, no less prejudicial nor ridiculous than the former, and that is a fantastical and wild attributing all knowledge to the ancients alone, or to the moderns. This raving upon antiquity in matter of poetry, Horace has wittily described and exposed in one of his satires. The same sort of madness may be found in reference to all the other sciences. Some will not admit an opinion not authorized by men of old, who were then all giants in knowledge : nothing is to be put into the treasury of truth or knowledge, which has not the stamp of Greece or Rome upon it ; and since their days will scarce allow that men have been able to see, think, or write. Others, with a like extravagancy, condemn all that the ancients have left us, and, being taken with the modern inventions and discoveries, lay by all that went before ; as if whatever is called old must have the decay of time upon it, and truth too were liable to mould and rottenness. Men I think have been much the same for natural endowments in all times. Fashion, discipline, and education have put eminent differences in the ages of

several countries: and made one generation much differ from another in arts and sciences. But truth is always the same; time alters it not, nor is it the better or worse for being of ancient or modern tradition. Many were eminent in former ages of the world for their discovery and delivery of it; but though the knowledge they have left us be worth our study, yet they exhausted not all its treasure; they left a great deal for the industry and sagacity of after ages, and so shall we. That was once new to them which any one now receives with veneration for its antiquity, nor was it the worse for appearing as a novelty; and that which is now embraced for its newness will, to posterity, be old, but not thereby be less true or less genuine. There is no occasion on this account to oppose the ancients and the moderns to one another, or to be squeamish on either side. He that wisely conducts his mind in the pursuit of knowledge will gather what lights, and get what helps he can, from either of them from whom they are best to be had, without adoring the errors or rejecting the truths which he may find mingled in them.

Another partiality may be observed, in some to vulgar, in others to heterodox tenets; some are apt to conclude that what is the common opinion cannot but be true; so many men's eyes they think cannot but see right; so many men's understandings of all sorts cannot be deceived, and therefore will not venture to look beyond the received notions of the place and age, nor have so presumptuous a thought as to be wiser than their neighbours. They are content to go with the crowd, and so go easily, which they think is going right, or at least serves them as well. But however "*Vox populi vox Dei*" has prevailed as a maxim, yet I do not remember wherever God delivered his oracles by the multitude, or Nature truths by the herd. On the other side, some fly all common opinions as either false or frivolous. The title of 'many-headed' beast is a sufficient reason to them to conclude that no truths of weight or consequence can be lodged there. Vulgar opinions are suited to vulgar capacities, and adapted to the ends of those that govern. He that will know the truth of things must leave the common and beaten track,

which none but weak and servile minds are satisfied to trudge along continually in. Such nice palates relish nothing but strange notions quite out of the way: whatever is commonly received has the mark of the beast on it, and they think it a lessening to them to hearken to it or receive it: their mind runs only after paradoxes; these they seek, these they embrace, these alone they vent, and so (as they think) distinguish themselves from the vulgar. But common or uncommon are not the marks to distinguish truth or falsehood, and therefore should not be any bias to us in our inquiries. We should not judge of things by men's opinions, but of opinions by things. The multitude reason but ill, and therefore may be well suspected, and cannot be relied on, nor should be followed as a sure guide; but philosophers who have quitted the orthodoxy of the community, and the popular doctrines of their countries, have fallen into as extravagant and as absurd opinions as ever common reception countenanced. It would be madness to refuse to breathe the common air, or quench one's thirst with water because the rabble use them to these purposes; and, if there are conveniences of life which common use reaches not, it is not reason to reject them, because they are not grown into the ordinary fashion of the country, and every villager doth not know them.

Truth, whether in or out of fashion, is the measure of knowledge, and the business of the understanding; whatsoever is besides that, however authorized by consent or recommended by rarity, is nothing but ignorance, or something worse.

Another sort of partiality there is whereby men impose upon themselves, and by it make their reading little useful to themselves,—I mean the making use of the opinions of writers, and laying stress upon their authorities wherever they find them to favour their own opinions.

There is nothing almost has done more harm to men dedicated to letters than giving the name of study to reading, and making a man of great reading to be the same with a man of great knowledge, or at least to be a title of honour. All that can be recorded in writing are

only facts or reasonings. *Facts* are of three sorts :

1. Merely of natural agents, observable in the ordinary operations of bodies one upon another, whether in the visible course of things left to themselves, or in experiments made by men applying agents and patients to one another after a peculiar and artificial manner.

2. Of voluntary agents, more especially the actions of men in society, which makes civil and moral history.

3. Of opinions.

In these three consists, as it seems to me, that which commonly has the name of learning ; to which perhaps some may add a distinct head of critical writings, which indeed at bottom is nothing but matter of fact, and resolves itself into this, that such a man, or set of men used such a word or phrase in such a sense,—i. e. that they made such sounds the marks of such ideas.

Under *reasonings* I comprehend all the discoveries of general truths made by human reason, whether found by intuition, demonstration, or probable deductions. And this is that which is, if not alone knowledge, (because the truth or probability of particular propositions may be known too), yet is, as may be supposed, most properly the business of those who pretend to improve their understandings and make themselves knowing by reading.

Books and reading are looked upon to be the great helps of the understanding and instruments of knowledge, as it must be allowed that they are ; and yet I beg leave to question whether these do not prove a hindrance to many, and keep several bookish men from attaining to solid and true knowledge. This, I think, I may be permitted to say ; that there is no part wherein the understanding needs a more careful and wary conduct than in the use of books, without which they will prove rather innocent amusements than profitable employments of our time, and bring but small additions to our knowledge. • •

• There is not seldom to be found, even amongst those who aim at knowledge, who with an unwearied industry employ their whole time in books, who scarcely allow themselves time to eat or sleep, but read, and read, and read on, yet make no great advances in real knowledge ; though

there be no defect in their intellectual faculties, to which their little progress can be imputed. The mistake here is, that it is usually supposed that by reading, the author's knowledge is transfused into the reader's understanding ; and so it is, but not by bare reading, but by reading and understanding what he wrote. Whereby I mean, not barely comprehending what is affirmed or denied in each proposition (though that great readers do not always think themselves concerned precisely to do); but to see and follow the train of his reasonings, observe the strength and clearness of their connexion, and examine upon what they bottom. Without this a man may read the discourses of a very rational author, written in a language and in propositions that he very well understands, and yet acquire not one jot of his knowledge ; which consisting only in the perceived, certain, or probable connexion of the ideas made use of in his reasonings, the reader's knowledge is no further increased than he perceives that ; so much as he sees of this connexion, so much he knows of the truth or probability of that author's opinions.

All that he relies on without this perception, he takes upon trust, upon the author's credit, without any knowledge of it at all. This makes me not at all wonder to see some men so abound in citations and build so much upon authorities,—it being the sole foundation on which they bottom most of their own tenets ; so that in effect they have but a second-hand or implicit knowledge ; i. e. are in the right if such an one from whom they borrowed it were in the right in that opinion which they took from him,—which indeed is no knowledge at all. Writers of this or former ages may be good witnesses of matters of fact which they deliver, which we may do well to take upon their authority ; but their credit can go no further than this ; it cannot at all affect the truth and falsehood of opinions which have no other sort of trial but reason and proof, which they themselves made use of to make themselves knowing, and so must others too that will partake in their knowledge. Indeed it is an advantage that they have been at the pains to find out the proofs and lay them in that order that may show the truth or probability of their conclusions, and for

this we owe them great acknowledgments for saving us the pains in searching out those proofs which they have collected for us, and which possibly, after all our pains, we might not have found nor been able to have set them in so good a light as that which they left them in. Upon this account we are mightily beholden to judicious writers of all ages for those discoveries and discourses they have left behind them for our instruction if we know how to make a right use of them ; which is not to run them over in a hasty perusal, and perhaps lodge their opinions or some remarkable passages in our memories, but to enter into their reasoning, examine their proofs, and then judge of the truth or falsehood, probability or improbability of what they advance,—not by any opinion we have entertained of the author, but by the evidence he produces and the conviction he affords us drawn from things themselves. Knowing is seeing ; and if it be so, it is madness to persuade ourselves that we do so by another man's eyes, let him use ever so many words to tell us that what he asserts is very visible. Till we ourselves see it with our own eyes, and perceive it by our own understandings, we are as much in the dark and as void of knowledge as before, let us believe any learned author as much as we will.

Euclid and Archimedes are allowed to be knowing and to have demonstrated what they say, and yet whoever shall read over their writings without perceiving the connexion of their proofs, and seeing what they shew, though he may understand all their words, yet he is not the more knowing : he may believe indeed, but does not know what they say, and so is not advanced one jot in mathematical knowledge by all his reading of those approved mathematicians.

25. Haste.—The eagerness and strong bent of the mind after knowledge, if not warily regulated, is often a hindrance to it. It still presses into further discoveries and new objects, and catches at the variety of knowledge, and therefore often stays not long enough on what is before it to look into it as it should, for haste to pursue what is yet out of sight. He that rides post through a country may be

able from the transient view to tell how in general the parts lie, and may be able to give some loose description of here a mountain and there a plain, here a morass and there a river, woodland in one part and savannahs in another. Such superficial ideas and observations as these he may collect in galloping over it ; but the more useful observations of the soil, plants, animals, and inhabitants, with their several sorts and properties, must necessarily escape him ; and it is seldom men ever discover the rich mines, without some digging. Nature commonly lodges her treasure and jewels in rocky ground. If the matter be knotty, and the sense lies deep, the mind must stop and buckle to it, and stick upon it with labour and thought and close contemplation, and not leave it till it has mastered the difficulty, and got possession of truth. But here care must be taken to avoid the other extreme ; a man must not stick at every useless nicety, and expect mysteries of science in every trivial question or scruple that he may raise. He that will stand to pick up and examine every pebble that comes in his way, is as unlikely to return enriched and laden with jewels as the other that travelled full speed. Truths are not the better nor the worse for their obviousness or difficulty, but their value is to be measured by their usefulness and tendency. Insignificant observations should not take up any of our minutes ; and those that enlarge our view and give light towards further and useful discoveries, should not be neglected, though they stop our course and spend some of our time in a fixed attention.

There is another haste that does often and will mislead the mind, if it be left to itself and its own conduct. The understanding is naturally forward, not only to learn its knowledge by variety (which makes it skip over one to get speedily to another part of knowledge), but also eager to enlarge its views by running too fast into general observations and conclusions, without a due examination of particulars enough whereon to found those general axioms. This seems to enlarge their stock, but it is of fancies, not realities ; such theories built upon narrow foundations, stand but weakly ; and if they fall not of themselves, are at least very hardly to be supported against the assaults of opposition.

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And thus men being too hasty to erect to themselves general notions and ill-grounded theories, find themselves deceived in their stock of knowledge when they come to examine their hastily assumed maxims themselves or to have them attacked by others. General observations drawn from particulars are the jewels of knowledge, comprehending great store in a little room; but they are therefore to be made with the greater care and caution,—lest if we take counterfeit for true, our loss and shame be the greater when our stock comes to a severe scrutiny. One or two particulars may suggest hints of inquiry, and they do well who take those hints; but if they turn them into conclusions, and make them presently general rules, they are forward indeed, but it is only to impose on themselves by propositions assumed for truths without sufficient warrant. To make such observations is, as has been already remarked, to make the head a magazine of materials which can hardly be called knowledge; or at least it is but like a collection of lumber not reduced to use or order. And he that makes everything an observation has the same useless plenty and much more falsehood mixed with it. The extremes on both sides are to be avoided, and he will be able to give the best account of his studies who keeps his understanding in the right mean between them.

**26. Anticipation.**—Whether it be a love of that which brings the first light and information to their minds, and want of vigour and industry to inquire; or else that men content themselves with any appearance of knowledge, right or wrong, which when they have once got they will hold fast: this is visible, that many men give themselves up to the first anticipations of their minds, and are very tenacious of the opinions that first possess them; they are often as fond of their first-born, and will by no means recede from the judgment they have once made, or any conjecture or conceit which they have once entertained. This is a fault in the conduct of the understanding, since this firmness or rather stiffness of the mind is not from an adherence to truth, but submission to prejudice. It is an unreasonable homage paid to prepossession, whereby we show a reverence

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not to (what we pretend to seek) truth; but what by hazard we chance to light on, be it what it will. This is visibly a preposterous use of our faculties, and is a downright prostituting of the mind to resign it thus, and put it under the power of the first comer. This can never be allowed or ought to be followed as a right way to knowledge till the understanding (whose business it is to conform itself to what it finds on the objects without) can by its own opiniatry change that, and make the unalterable nature of things comply with its own hasty determinations, which will never be. Whatever we fancy, things keep their course, and their habitudes, correspondences, and relations keep the same to one another.

**27. Resignation.**—Contrary to these, but by a like dangerous excess on the otherside, are those who always resign their judgment to the last man they heard or read. Truth never sinks into these men's minds nor gives any tincture to them, but, chameleon-like, they take the colour of what is laid before them, and as soon lose and resign it to the next that happens to come in their way. The order wherein opinions are proposed or received by us is no rule of their rectitude, nor ought to be a cause of their preference. First or last in this case is the effect of chance, and not the measure of truth or falsehood. This every one must confess, and therefore should, in the pursuit of truth, keep his mind free from the influence of any such accidents. A man may as reasonably draw cuts for his tenets, regulate his persuasion by the cast of a die, as take it up for its novelty, or retain it because it had his first assent and he was never of another mind. Well-weighed reasons are to determine the judgment; those the mind should be always ready to hearken and submit to, and by their testimony and suffrage entertain or reject any tenet indifferently, whether it be a perfect stranger or an old acquaintance.

**28. Practice.**—Though the faculties of the mind are improved by exercise, yet they must not be put to a stress beyond their strength. "Quid valeant humeri, quid ferre

recusent," must be made the measure of every one's understanding, who has a desire not only to perform well, but to keep up the vigour of his faculties, and not to balk his understanding by what is too hard for it. The mind by being engaged in a task beyond its strength, like the body strained by lifting at a weight too heavy, has often its force broken, and thereby gets an unaptness or an aversion to any vigorous attempt ever after. A sinew cracked seldom recovers its former strength ; or at least the tenderness of the sprain remains a good while after, and the memory of it longer, and leaves a lasting caution in the man not to put the part quickly again to any robust employment. So it fares in the mind once jaded by an attempt above its power ; it either is disabled for the future, or else checks at any vigorous undertaking ever after ; at least is very hardly brought to exert its force again on any subject that requires thought and meditation. The understanding should be brought to the difficult and knotty parts of knowledge that try the strength of thought and a full bent of the mind, by insensible degrees : and in such a gradual proceeding nothing is too hard for it. Nor let it be objected that such a slow progress will never reach the extent of some Sciences. It is not to be imagined how far constancy will carry a man ; however, it is better walking slowly in a rugged way than to break a leg and be a cripple. He that begins with the calf may carry the ox, but he that will at first go to take up an ox may so disable himself as not to be able to lift up a calf after that. When the mind by insensible degrees has brought itself to attention and close thinking, it will be able to cope with difficulties and master them without any prejudice to itself, and then it may go on roundly. Every abstruse problem, every intricate question will not baffle, discourage, or break it. But though putting the mind unprepared upon an unusual stress that may discourage or damp it for the future ought to be avoided ; yet this must not run it by an over-great shyness of difficulties, into a lazy sauntering about ordinary and obvious things that demand no thought or application. This debases and enervates the understanding, makes it weak and unfit for labour. This is a sort



## CONDUCT OF THE UNDERSTANDING.

of hovering about the surface of things, without any insight into them or penetration ; and when the mind has been once habituated to this lazy recumbency and satisfaction on the obvious surface of things, it is in danger to rest satisfied there and go no deeper, since it cannot do it without pains and digging. He that has for some time accustomed himself to take up with what easily offers itself at first view, has reason to fear he shall never reconcile himself to the fatigue of turning and tumbling things in his mind to discover their more retired and more valuable secrets.

It is not strange that methods of learning which scholars have been accustomed to in their beginning and entrance upon the sciences should influence them all their lives, and be settled in their minds by an overruling reverence ; especially if they be such as universal use has established. Learners must at first be believers ; and, their master's rules having been once made axioms to them, it is no wonder they should keep that dignity, and by the authority they have once got, mislead those who think it sufficient to excuse them if they go out of their way in a well-beaten track.

**29. Words.**—I have copiously enough spoken of the abuse of words in another place ; and therefore shall upon this reflection, that the sciences are full of them,—warn those that would conduct their understandings right, not to take any term, howsoever authorized by the language of the schools, to stand for anything till they have an idea of it. A word may be of frequent use and great credit with several authors, and be by them made use of, as if it stood for some real being, but yet if he that reads cannot frame any distinct idea of that being, it is certainly to him a mere empty sound without a meaning, and he learns no more by all that is said of it or attributed to it, than if it were affirmed only of that bare empty sound. They who would advance in knowledge, and not deceive and swell themselves with a little articulated air, should lay down this as a fundamental rule : not to take words for things, nor suppose that names in books signify real

entities in nature, till they can frame clear and distinct ideas of those entities. It will not perhaps be allowed if I should set down *substantial forms* and *intentional species*, as such that may justly be suspected to be of this kind of insignificant terms. But this I am sure, to one that can form no determined ideas of what they stand for, they signify nothing at all; and all that he thinks he knows about them is to him so much knowledge about nothing, and amounts at most but to a learned ignorance. It is not without all reason supposed that there are many such empty terms to be found in some learned writers, to which they had recourse to etch out their systems, where their understandings could not furnish them with conceptions from things. But yet I believe the supposing of some realities in nature answering those and the like words, have much perplexed some and quite misled others in the study of nature. That which in any discourse signifies, *I know not what*, should be considered *I know not when*. Where men have any conceptions, they can, if they are ever so abstruse or abstracted, explain them, and the terms they use for them. For our conception being nothing but ideas, which are all made up of simple ones, if they cannot give us the ideas their words stand for, it is plain they have none. To what purpose can it be to hunt after his conceptions who has none, or none distinct? He that knew not what he himself meant by a learned term, cannot make us know anything by his use of it, let us beat our heads about it ever so long. Whether we are able to comprehend all the operations of nature and the manners of them, it matters not to inquire, but this is certain, that we can comprehend no more of them than we can distinctly conceive, and therefore to obtrude terms where we have no distinct conceptions, as if they did contain or rather conceal something, is but an artifice of learned vanity to cover a defect in an hypothesis or our understandings. Words are not made to conceal, but to declare and show something; where they are (by those who pretend to instruct) otherwise used, they conceal indeed something; but that that they conceal is nothing but the ignorance, error, or sophistry of the talker, for there is in truth nothing else under them.

**30. Wandering.**—That there is a constant succession and flux of ideas in our minds I have observed in the former part of this essay, and every one may take notice of it in himself. This, I suppose, may deserve some part of our care in the conduct of our understandings; and I think it may be of great advantage if we can by use get that power over our minds, as to be able to direct that train of ideas, that so, since there will new ones perpetually come into our thoughts by a constant succession, we may be able by choice so to direct them, that none may come in view, but such as are pertinent to our present inquiry, and in such order as may be most useful to the discovery we are upon. Or at least, if some foreign and unsought ideas will offer themselves, that yet we might be able to reject them, and keep them from taking off our minds from its present pursuit, and hinder them from running away with our thoughts quite from the subject in hand. This is not, I suspect, so easy to be done as perhaps may be imagined; and yet, for aught I know, this may be, if not the chief, yet one of the great differences that carry some men in their reasoning so far beyond others, where they seem to be naturally of equal parts. A proper and effectual remedy for this wandering of thoughts I would be glad to find. He that shall propose such an one would do great service to the studious and contemplative part of mankind, and perhaps help unthinking men to become thinking. I must acknowledge that hitherto I have discovered no other way to keep our thoughts close to their business, but the endeavouring as much as we can, and by frequent attention and application, getting the habit of attention and application. He that will observe children will find that even when they endeavour their uttermost, they cannot keep their minds from straggling. The way to cure it, I am satisfied, is not angry chiding or beating, for that presently fills their heads with all the ideas that fear, dread, or confusion can offer to them. To bring back gently their wandering thoughts, by leading them into the path and going before them in the train they should pursue, without any rebuke, or so much as taking notice (where it can be avoided) of their roving, I suppose, would sooner reconcile and inure them to atten-

tion than all these rougher methods which more distract their thought, and hindering the application they would promote, introduce a contrary habit.

**31. Distinction.**—Distinction and division are (if I mistake not the import of the words) very different things ; the one being the perception of a difference that nature has placed in things ; the other, our making a division where there is yet none. At least if it may be permitted to consider them in this sense, I think I may say of them, that one of them is the most necessary and conducive to true knowledge that can be ; the other, when too much made use of, serves only to puzzle and confound the understanding. To observe every the least difference that is in things argues a quick and clear sight, and this keeps the understanding steady and right in its way to knowledge. But though it be useful to discern every variety that is to be found in nature, yet it is not convenient to consider every difference that is in things, and divide them into distinct classes under every such difference. This will run us, if followed, into particulars, (for every individual has something that differences it from another), and we shall be able to establish no general truths, or else at least shall be apt to perplex the mind about them. The collection of several things into several classes gives the mind more general and larger views, but we must take care to unite them only in that, and so far as they do agree, for so far they may be united under the consideration ; for entity itself, that comprehends all things, as general as it is, may afford us clear and rational conceptions. • If we would well weigh and keep in our minds what it is we are considering, that would best instruct us when we should or should not branch into farther distinctions, which are to be taken only from a due contemplation of things,—to which there is nothing more opposite than the art of verbal distinctions made at pleasure in learned and arbitrarily invented terms, to be applied at a venture, without comprehending or conveying any distinct notions, and so altogether fitted to artificial talk or empty noise in dispute, without any clearing of difficulties or advance in knowledge.

Whatsoever subject we examine and would get knowledge in, we should, I think, make as general and as large as it will bear ; nor can there be any danger of this, if the idea of it be settled and determined : for if that be so, we shall easily distinguish it from any other idea, though comprehended under the same name. For it is to fence against the entanglements of equivocal words, and the great art of sophistry which lies in them, that distinctions have been multiplied and their use thought necessary. But had every distinct abstract idea a distinct known name, there would be little need of these multiplied scholastic distinctions, though there would be nevertheless as much need still of the mind's observing the differences that are in things, and discriminating them thereby one from another. It is not therefore the right way to knowledge, to "hunt after, and fill the head with, abundance of artificial and scholastic distinctions, wherewith learned men's writings are often filled : and we sometimes find what they treat of so divided and subdivided that the mind of the most attentive reader loses the sight of it, as it is more than probable the writer himself did ; for in things crumbled into dust it is in vain to affect or pretend order, or expect clearness. To avoid confusion by too few or too many divisions, is a great skill in thinking as well as writing,—which is but the copying our thoughts ; but what are the boundaries of the mean between the two vicious excesses on both hands, I think is hard to set down in words : clear and distinct ideas is all that I yet know able to regulate it. But as to verbal distinctions received and applied to common terms, i. e. equivocal words, they are more properly, I think, the business of criticism and dictionaries than of real knowledge and philosophy ; since they for the most part explain the meaning of words, and give us their several significations.

The dexterous management of terms, and being able to *fend* and *prove* with them, I know has and does pass in the world for a great part of learning ; but it is learning distinct from knowledge. For knowledge consists only in perceiving the habitudes and relations of ideas one to another, which is done without words ; the intervention of a sound helps nothing to it. And hence we see that

there is least use of distinctions where there is most knowledge,—I mean in mathematics, where men have determined ideas with known names to them, and so there being no room for equivocations, there is no need of distinctions. In arguing, the opponent uses as comprehensive and equivocal terms as he can, to involve his adversary in the doubtfulness of his expressions : this is expected, and therefore the answerer on his side makes it his play to distinguish as much as he can, and thinks he can never do it too much ; nor can he indeed, in that way wherein victory may be had without truth and without knowledge. This seems to me to be the art of disputing. Use your words as captiously as you can in your arguing on one side, and apply distinctions as much as you can on the other side to every term, to nonplus your opponent ; so that in this sort of scholarship, there being no bounds set to distinguishing, some men have thought all acuteness to have lain in it, and therefore in all they have read or thought on, their great business has been to amuse themselves with distinctions, and multiply to themselves divisions ; at least, more than the nature of the thing required. There seems to me, as I said, to be no other rule for this but a due and right consideration of things as they are in themselves. He that has settled in his mind determined ideas, with names affixed to them, will be able both to discern their differences one from another, which is really distinguishing ; and where the penury of words affords not terms answering every distinct idea, will be able to apply proper distinguishing terms to the comprehensive and equivocal names he is forced to make use of. This is all the need I know of distinguishing terms : and in such verbal distinctions each term of the distinction, joined to that whose signification it distinguishes, is but a distinct name for a distinct idea. Where they are so, and men have clear and distinct conceptions that answer their verbal distinctions, they are right, and are pertinent as far as they serve to clear any thing in the subject under consideration. And this is that which seems to me the proper and only measure of distinctions and divisions,—which he that will conduct his understanding

right must not look for in the acuteness of invention nor the authority of writers, but will find only in the consideration of things themselves, whether he is led into it by his own meditations or the information of books.

An aptness to jumble things together wherein can be found any likeness, is a fault in the understanding on the other side, which will not fail to mislead it, and by thus lumping of things, hinder the mind from distinct and accurate conceptions of them.

**32. Similes.** To which let me here add another near of kin to this, at least in name; and that is letting the mind, upon the suggestion of any new notion, run immediately after similes to make it the clearer to itself; which, though it may be a good way and useful in the explaining our thoughts to others, yet it is by no means a right method to settle true notions of anything in ourselves. Because similes always fail in some part, and come short of that exactness which our conceptions should have to things if we would think aright. This indeed makes men plausible talkers; for those are always most acceptable in discourse who have the way to let their thoughts into other men's minds with the greatest ease and facility; whether those thoughts are well formed and correspond with things, matters not; few men care to be instructed but at an easy rate. They who in their discourse strike the fancy, and take the hearers' conceptions along with them as fast as their words flow, are the applauded talkers, and go for the only men of clear thoughts. Nothing contributes so much to this as similes, whereby men think they themselves understand better, because they are better understood. But it is one thing to think right, and another thing to know the right way to lay our thoughts before others with advantage and clearness, be they right or wrong. Well chosen similes, metaphors and allegories, with method and order, do this the best of anything; because, being taken from objects already known and familiar to the understanding, they are conceived as fast as spoken; and the correspondence being concluded, the thing they are brought to explain and elucidate is thought to be understood too.

Thus fancy passes for knowledge, and what is prettily said is mistaken for solid. I say not this to decry metaphor, or with design to take away that ornament of speech; my business here is not with rhetoricians and orators, but with philosophers and lovers of truth, to whom I would beg leave to give this one rule thereby to try whether, in the application of their thoughts to any thing for the improvement of their knowledge, they do in truth comprehend the matter before them really such as it is in itself. The way to discover this is to observe whether, in the laying it before themselves or others, they make use only of borrowed representations and ideas foreign to the thing, which are applied to it by way of accommodation, as bearing some proportion or imagined likeness to the subject under consideration. Figured and metaphorical expressions do well to illustrate more abstruse and unfamiliar ideas, which the mind is not yet thoroughly accustomed to; but then they must be made use of to illustrate ideas that we already have, not to paint to us those which we yet have not. Such borrowed and allusive ideas may follow real and solid truth, to set it off when found,—but must by no means be set in its place and taken for it. If all our search has yet reached no farther than simile and metaphor, we may assure ourselves we rather fancy than know, and are not yet penetrated into the inside and reality of the thing, be it what it will,—but content ourselves with what our imaginations, not things themselves, furnish us with.

**33. Assent.** In the whole conduct of the understanding, there is nothing of more moment than to know when and where, and how far to give assent, and possibly there is nothing harder. It is very easily said, and no body questions it, that giving and withholding our assent and the degrees of it should be regulated by the evidence which things carry with them; and yet we see men are not the better for this rule; some firmly embrace doctrines upon slight grounds, some upon no grounds, and some contrary to appearance: some admit of certainty, and are not to be moved in what they hold; others waver in everything, and there want not those that reject all as



uncertain. What then shall a novice, an inquirer, a stranger do in the case? I answer, use his eyes. There is a correspondence in things, and agreement and disagreement in ideas, discernible in very different degrees, and there are eyes in men to see them if they please; only their eyes may be dimmed or dazzled, and the discerning sight in them impaired or lost. Interest and passion dazzle; the custom of arguing on any side, even, against our persuasions, dims the understanding, and makes it by degrees lose the faculty of discerning clearly between truth and falsehood, and so of adhering to the right side. It is not safe to play with error and dress it up to ourselves or others in the shape of truth. The mind by degrees loses its natural relish of real solid truth, is reconciled insensibly to anything that can but be dressed up into any faint appearance of it. And, if the fancy be allowed the place of judgment at first in sport, it afterwards comes by use to usurp it; and what is recommended by this flatterer (that studies but to please) is received for good. There are so many ways of fallacy, such arts of giving colours, appearances, and resemblances by this court dresser,—the fancy,—that he who is not wary to admit nothing but truth itself, very careful not to make his mind subservient to any thing else, cannot but be caught. He that has a mind to believe has half assented already; and he that by often arguing against his own sense imposes falsehoods on others, is not far from believing himself. This takes away the great distance there is betwixt truth and falsehood; it brings them almost together, and makes it no great odds in things that approach so near which you take; and when things are brought to that pass, passion, or interest, &c. easily, and without being perceived, determine which shall be the right.

**34. Indifferency.**—I have said above that we should keep a perfect indifferency for all opinions, not wish any of them true, or try to make them appear so; but, being indifferent, receive and embrace them according as evidence, and that alone, gives the attestation of truth. They that do thus,—i. e. keep their minds indifferent to opinions, to be determined only by evidence,—will always

find the understanding has perception enough to distinguish between evidence or no evidence, betwixt plain and doubtful ; and if they neither give nor refuse their assent but by that measure, they will be safe in the opinions they have. Which being perhaps but few, this caution will have also this good in it, that it will put them upon considering, and teach them the necessity of examining more than they do ; without which the mind is but a receptacle of inconsistencies, not the storehouse of truths. They that do not keep up this indifferency in themselves for all but truth, (not supposed, but evidenced in themselves,) put coloured spectacles before their eyes, and look on things through false glasses and then think themselves excused in following the false appearances, which they themselves put upon them. I do not expect that by this way the assent should in every one be proportioned to the grounds and clearness wherewith every truth is capable to be made out, or that men should be perfectly kept from error ; that is more than human nature can by any means be advanced to. I aim at no such unattainable privilege : I am only speaking of what they should do, who would deal fairly with their own minds, and make a right use of their faculties in the pursuit of truth. We fail them a great deal more than they fail us. It is mismanagement more than want of abilities that men have reason to complain of and which they actually do complain of in those that differ from him. He that, by an indifferency for all but truth, suffers not his assent to go faster than his evidence, nor beyond it, will learn to examine, and examine fairly instead of presuming, and no body will be at a loss or in danger for want of embracing those truths which are necessary in his station and circumstances. In any other way but this, all the world are born to orthodoxy ; they imbibe at first the allowed opinions of their country and party, and so never questioning their truth, not one of a hundred ever examines. They are applauded for presuming they are in the right. He that considers is a foe to orthodoxy, because possibly he may deviate from some of the received doctrines there. And thus men, without any industry or acquisition of their own, inherit local

truths (for it is not the same every where) and are inured to assent without evidence. This influences further than is thought ; for what one of a hundred of the zealous bigots in all parties ever examined the tenets he is so stiff in, or ever thought it his business or duty so to do ? It is suspected of lukewarmness to suppose it necessary, and a tendency to apostasy to go about it. And if a man can bring his mind once to be positive and fierce for positions whose evidence he has never once examined, (and that in matters of greatest concernment to him,) what shall keep him from this short and easy way of being in the right in cases of less moment ? Thus we are taught to clothe our minds as we do our bodies,—after the fashion in vogue ; and it is accounted fantasticalness, or something worse, not to do so. This custom (which who dares oppose ?) makes the short-sighted bigots, and the warier sceptics, as far as it prevails : and those that break from it are in danger of heresy : for taking the whole world, how much of it doth truth and orthodoxy possess together ? Though it is by the last alone (which has the good luck to be every where) that error and heresy are judged of : for argument and evidence signify nothing in the case, and excuse no where, but are sure to be borne down in all societies by the infallible orthodoxy of the place. Whether this be the way to truth and right assent, let the opinions that take place and prescribe in the several habitable parts of the earth, declare. I never saw any reason yet why truth might not be trusted to its own evidence : I am sure if that be not able to support it, there is no fence against error ; and then truth and falsehood are but names that stand for the same things. Evidence therefore is that by which alone every man is (and should be) taught to regulate his assent ; who is then, and then only, in the right way when he follows it.

Men deficient in knowledge, are usually in one of these three states ; either wholly ignorant ; or as doubting of some proposition they have either embraced formerly, or at present are inclined to ; or, lastly, they do with assurance hold and profess, without ever having examined and been convinced by well grounded arguments.

The first of these are in the best state of the three, by having their minds yet in their perfect freedom and indifference, the likelier to pursue truth the better, having no bias yet clapped on to mislead them.

**35. Ignorance with indifference.**—For ignorance with an indifference for truth, is nearer to it than opinion with ungrounded inclination, which is the great source of error ; and they are more in danger to go out of the way who are marching under the conduct of a guide that (it is a hundred to one) will mislead them, than he that has not yet taken a step, and is likelier to be prevailed on to inquire after the right way.

The last of the three sorts are in the worst condition of all ; for if a man can be persuaded and fully assured of any thing for a truth, without having examined, what is there that he may not embrace for truth ? And if he has given himself up to believe a lie, what means is there left to recover one who can be assured without examining ? To the other two, this I crave leave to say, that as he that is ignorant is in the best state of the two, so he should pursue truth in a method suitable to that state ; i. e. by inquiring directly into the nature of the thing itself, without minding the opinions of others, or troubling himself with their questions or disputes about it ; but to see what he himself can, sincerely searching after truth, find out. He that proceeds upon other principles in his inquiry into any sciences, though he be resolved to examine them and judge of them freely, does yet at least put himself on that side, and post himself in a party which he will not quit till he be beaten out ; by which the mind is insensibly engaged to make what defence it can, and so is unawares biassed. I do not say but a man should embrace some opinion when he has examined, else he examines to no purpose ; but the surest and safest way is to have no opinion at all till he has examined, and that without any the least regard to the opinions or systems of other men about it. For example, were it my business to understand physic, would not the safer and readier way be to consult nature herself, and inform myself in the history of diseases and their cures,

than espousing the principles of the dogmatists, methodists, or chymists, to engage in all the disputes concerning either of those systems, and suppose it to be true, till I have tried what they can say to beat me out of it. Or, supposing that Hippocrates, or any other book, infallibly contains the whole art of physic; would not the direct way be to study, read, and consider that book, weigh and compare the parts of it to find the truth, rather than espouse to doctrines of any party—who, though they acknowledge his authority, have already interpreted and wiredrawn all this text to their own sense; the tincture whereof when I have imbibed, I am more in danger to misunderstand his true meaning, than if I had come to him with a mind unprepossessed by doctors and commentators of my sect, whose reasonings, interpretation, and language, (which I have been used to,) will of course make all chime that way, and make another and perhaps the genuine meaning of the author seem harsh, strained, and uncouth to me. For words, having naturally none of their own, carry that signification to the hearer that he is used to put upon them, whatever be the sense of him that uses them. This, I think, is visibly so; and if it be, he that begins to have any doubt of any of his tenets,—which he received without examination,—ought, as much as he can, to put himself wholly into this state of ignorance in reference to that question; and throwing wholly by all his former notions, and the opinions of others, examine, with a perfect indifference, the question in its source, without any inclination to either side or any regard to his or others' unexamined opinions. This I own is no easy thing to do; but I am not inquiring the easy way to opinion, but the right way to truth, which they must follow who will deal fairly with their own understanding and their own souls.

**36. Question.**—The indifference that I here propose will also enable them to state the question right, which they are in doubt about, without which they can never come to a fair and clear decision of it.

**37. Perseverance.**—Another fruit from this indifference and the considering things in themselves abstract from our own opinions and other men's notions and discourses on them, will be, that each man will pursue his thoughts in that method which will be most agreeable to the nature of the thing, and to his apprehension of what it suggests to him, in which he ought to proceed with regularity and constancy, until he come to a well-grounded resolution where in he may acquiesce. If it be objected that this will require every man to be a scholar, and quit all his other business and betake himself wholly to study ; I answer, I propose no more to any one than he has time for. Some men's state and condition require no great extent of knowledge ; the necessary provision for life swallows the greatest part of their time. But one man's want of leisure is no excuse for the oscitancy and ignorance of those who have time to spare ; and every one has enough to get as much knowledge as is required and expected of him, and he that does not that, is in love with ignorance and is accountable for it.

**38. Presumption.**—The variety of distempers in men's minds is as great as of those in their bodies ; some are epidemic, few escape them ; and every one too, if he would look into himself, would find some defect of his particular genius. There is scarce any one without some idiosyncrasy that he suffers by. This man presumes upon his parts, that they will not fail him at time of need and so thanks it superfluous labour to make any provision beforehand. His understanding is to him like Fortunatus's purse, which is always to furnish him, without ever putting anything into it beforehand ; and so he sits still satisfied, without endeavouring to store his understanding with knowledge. It is the spontaneous product of the country, and what need of labour in tillage ? Such men may spread their native riches before the ignorant ; but they were best not come to stress and trial with the skilful.

We are born ignorant of everything. The superficies of things that surround them make impressions on the negligent, but nobody penetrates into the inside without la-

bour, attention, and industry. Stones and timber grow of themselves, but yet there is no uniform pile with symmetry and convenience to lodge in, without toil and pains. God has made the intellectual world harmonious and beautiful without us ; but it will never come into our heads all at once ; we must bring it home piecemeal, and there set it up by our own industry, or else we shall have nothing but darkness and a chaos within, whatever order and light there be in things without us.

**39. Despondency.**—On the other side, there are others that depress their own minds, despond at the first difficulty, and conclude that the getting an insight in any of the sciences, or making any progress in knowledge, further than serves their ordinary business, is above their capacities. These sit still, because they think they have not legs to go ; as the others I last mentioned do, because they think they have wings to fly, and can soar on high when they please. To these latter, one may for answer apply the proverb, “Use legs and have legs.” Nobody knows what strength of parts he has till he has tried them. And of the understanding one may most truly say, that its force is greater generally than it thinks, till it is put to it. “*Viresque acquirit eundo.*”

And therefore the proper remedy here is but to set the mind to work, and apply the thoughts vigorously to the business ; for it holds in the struggles of the mind as in those of war, “*Dum putant, se vincere, vicerè.*”. A persuasion that we shall overcome any difficulties that we meet with in the sciences, seldom fails to carry us through them. Nobody knows the strength of his mind, and the force of steady and regular application, till he has tried. This is certain, he that sets out upon weak legs will not only go farther, but grow stonger too than one who, with a vigorous constitution and firm limbs, only sits still.

Something of kin to this, men may observe in themselves, when the mind frights itself (as it often does) with anything reflected on in gross, and transiently viewed confusedly and at a distance. Things, thus offered to the mind, carry the show of nothing but difficulty in them, and are

thought to be wrapped up in impenetrable obscurity. But the truth is, there are nothing but spectres that the understanding raises to itself to flatter its own laziness. It sees nothing distinctly in things remote and in a huddle; and therefore concludes too faintly, that there is nothing more clear to be discovered in them. It is but to approach nearer, and that mist of our own raising that enveloped them will remove; and those that in that mist appeared hideous giants not to be grappled with, will be found to be of the ordinary and natural size and shape. Things that in a remote and confused view seem very obscure, must be approached by gentle and regular steps; and what is most visible, easy, and obvious in them, first considered. Reduce them into their distinct parts; and then in their due order bring all that should be known concerning every one of those parts into plain and simple questions; and then what was thought obscure, perplexed, and too hard for our weak parts, will lay itself open to the understanding in a fair view, and let the mind into that which before it was awed with, and kept at a distance from, as wholly mysterious. I appeal to my reader's experience, whether this has never happened to him, especially when, busy on one thing, he has occasionally reflected on another. I ask him, whether he has never thus been scared with a sudden opinion of mighty difficulties, which yet have vanished, when he has seriously and methodically applied himself to the consideration of this seeming terrible subject; and there has been no other matter of astonishment left, but that he amused himself with so discouraging a prospect of his own raising, about a matter which in the handling was found to have nothing in it more strange nor intricate than several other things which he had long since, and with ease, mastered. This experience would teach us how to deal with such bugbears another time, which should rather serve to excite our vigour than enervate our industry. The surest way for a learner in this, as in all other cases, is not to advance by jumps and large strides; let that which he sets himself to learn next be indeed the next, i. e. as nearly conjoined with what he knows already as is possible; let it be distinct, but not remote from it; let it be new, and



what he did not know before, that the understanding may advance ; but let it be as little at once as may be, that its advances may be clear and sure. All the ground that it gets this way it will hold. This distinct gradual growth in knowledge is firm and sure ; it carries its own light with it in every step of its progression in an easy and orderly train ; than which there is nothing of more use to the understanding.

And though this perhaps may seem a very slow and lingering way to knowledge, yet I dare confidently affirm, that whoever will try it in himself, or any one he will teach, shall find the advances greater in this method, than they would in the same space of time have been in any other he could have taken. The greatest part of true knowledge lies in a distinct perception of things in themselves distinct. And some men give more clear light and knowledge by the bare distinct stating of a question, than others by talking of it in gross, whole hours together. In this, they who so state a question, do no more but separate and disentangle the parts of it one from another, and lay them, when so disentangled, in their due order. This often, without any more ado, resolves the doubt, and shows the mind where the truth lies. The agreement or disagreement of the ideas in question, when they are once separated and distinctly considered, is, in many cases, presently perceived, and thereby clear and lasting knowledge gained ; whereas things in gross taken up together, and so lying together in confusion, can produce in the mind but a confused, which in effect is no knowledge ; or at least, when it comes to be examined and made use of, will prove little better, than none. I therefore take the liberty to repeat here again what I have said elsewhere, that in learning any thing, as little should be proposed to the mind at once, as is possible ; and, that being understood and fully mastered, to proceed to the next adjoining part, yet unknown,—simple, unperplexed proposition, belonging to the matter in hand, and tending to the clearing what is principally designed.

**40. Analogy.**—Analogy is of great use to the mind in many cases, especially in natural philosophy ; and that

part of it chiefly which consists in happy and successful experiments. But here we must take care that we keep ourselves within that wherein the analogy consists. For example, the acid oil of vitriol is found to be good in such a case, therefore the spirit of nitre or vinegar may be used in the like case. If the good effect of it be owing wholly to the acidity of it, the trial may be justified ; but if there be something else besides the acidity in the oil of vitriol, which produces the good we desire in the case, we mistake that for analogy which is not, and suffer our understanding to be misguided by a wrong supposition of analogy where there is none.

**41. Association.**—Though I have, in the second book of my Essay concerning Human Understanding, treated of the association of ideas ; yet having done it there historically, as giving a view of the understanding in this as well as its several other ways of operating, rather than designing there to inquire into the remedies that ought to be applied to it : it will, under this latter consideration, afford other matter of thought to those who have a mind to instruct themselves thoroughly in the right way of conducting their understandings ; and that the rather, because this, if I mistake not, is as frequent a cause of mistake and error in us as perhaps any thing else that can be named ; and is a disease of the mind as hard to be cured as any, it being a very hard thing to convince any one that things are not so, and naturally so, as they constantly appear to him.

By this one easy and unheeded miscarriage of the understanding, sandy and loose foundations become infallible principles, and will not suffer themselves to be touched or questioned ; such unnatural connexions become by custom as natural to the mind, as sun and light, fire and warmth go together, and so seem to carry with them as natural an evidence as self-evident truths themselves. And where then shall one with hopes of success begin the cure ? Many men firmly embrace falsehood for truth ; not only because they never thought otherwise, but also because, thus blinded as they have been from the beginning, they

never could think otherwise ; at least without a vigour of mind able to contest the empire of habit, and look into its own principles ; a freedom which few men have the notion of in themselves, and fewer are allowed the practice of by others ; it being the great art and business of the teachers and guides in most sects to suppress, as much as they can, this fundamental duty which every man owes himself, and which is the first steady step towards right and truth in the whole train of his actions and opinions. This would give one reason to suspect, that such teachers are conscious to themselves of the falsehood or weakness of the tenets they profess, since they will not suffer the grounds whereon they are built to be examined ; whereas those who seek truth only, and desire to own and propagate nothing else, freely expose their principles to the test ; are pleased to have them examined ; give men leave to reject them if they can ; and if there be any thing weak and unsound in them, are willing to have it detected,—that they themselves, as well as others, may not lay any stress upon any received proposition beyond what the evidence of its truths will warrant and allow.

There is, I know, a great fault among all sorts of people of principling their children and scholars ; which at last, when looked into, amounts to no more but making them imbibe their teacher's notions and tenets by an implicit faith, and firmly to adhere to them whether true or false. What colours may be given to this, or of what use it may be when practised upon the vulgar, destined to labour, and given up to the service of their bellies, I will not here inquire. But as to the ingenuous part of mankind, whose condition allows them leisure, and letters, and inquiry after truth, I can see no other right way of principling them, but to take heed, as much as may be, that in their tender years, ideas that have no natural cohesion come not to be united in their heads, and that this rule be often inculcated to them to be their guide in the whole course of their lives and studies, viz. that they never suffer any ideas to be joined in their understandings in any other or stronger combination than what their own nature and correspondence give them ; and that they often examine those that

they find linked together in their minds,—whether this association of ideas be from the visible agreement that is in the ideas themselves, or from the habitual and prevailing custom of the mind joining them thus together in thinking.

This is for caution against this evil, before it be thoroughly riveted by custom in the understanding. But he that would cure it when habit has established it, must nicely observe the very quick and almost imperceptible motions of the mind in its habitual actions. What I have said in another place about the change of the ideas of sense into those of judgment, may be proof of this. Let any one, not skilled in painting, be told when he sees bottles and tobacco-pipes, and other things so painted, as they are in some places shown, that he does not see protuberances, and you will not convince him but by the touch; he will not believe that by an instantaneous legerdemain of his own thoughts, one idea is substituted for another. How frequent instances may one meet with of this in the arguings of the learned, who not seldom, in two ideas that they have been accustomed to join in their minds, substitute one for the other; and I am apt to think, often without perceiving it themselves! This, whilst they are under the deceit of it, makes them incapable of conviction, and they applaud themselves as zealous champions for truth, when indeed they are contending for error. And the confusion of two different ideas,—which a customary connexion of them in their minds hath made to them almost one,—fills their head with false views, and their reasonings with false consequences.

**42. Fallacies**—Right understanding consists in the discovery and adherence to truth, and that in the perception of the visible or probable agreement or disagreement of ideas, as they are affirmed and denied one of another. From whence it is evident, that the right use and conduct of the understanding, (whose business is purely truth and nothing else,) is, that the mind should be kept in a perfect indifferency, not inclining to either side, any further than evidence settles it by knowledge, or the overbalance of

probability gives it the turn of assent and belief. But yet it is very hard to meet with any discourse, wherein one may not perceive the author not only maintain (for that is reasonable and fit) but inclined and biassed to one side of the question, with marks of a desire that that should be true. If it be asked me, how authors who have such a bias and lean to it may be discovered ; I answer, by observing how in their writings or arguings they are often led by their inclinations to change the ideas of the question, either by changing the terms, or by adding and joining others to them ; whereby the ideas under consideration are so varied as to be more serviceable to their purpose, and to be thereby brought to an easier and nearer agreement, or more visible and remoter disagreement, one with another.

This is plain and direct sophistry ; but I am far from thinking that wherever it is found it is made use of with design to deceive and mislead the readers. It is visible that men's prejudices and inclinations by this way impose often upon themselves ; and their affection for truth, under their prepossession in favour of one side, is the very thing that leads them from it. Inclination suggests and slides into their discourse favourable terms, which introduce favourable ideas ; till at last, by this means that is concluded clear and evident, (thus dressed up,) which,—taken in its native state, by making use of none but the precise determined ideas,—would find no admittance at all.

The putting these glosses on what they affirm, (these, as they thought, handsome, easy, and graceful explications of what they are discoursing on,) is so much the character of what is called and esteemed writing well, that it is very hard to think that authors will ever be persuaded to leave what serves so well to propagate their opinions, and procure themselves credit in the world,—for a more jejune and dry way of writing, by keeping to the same terms precisely annexed to the same ideas ; a sour and blunt stiffness tolerable in mathematicians only, who force their way, and make truth prevail, by irresistible demonstration.

But yet if authors cannot be prevailed with to quit the looser, though more insinuating, ways of writing ; if they will not think fit to keep close to truth and instruction by

unvaried terms, and plain unsophisticated arguments ; yet it concerns readers not to be imposed on by fallacies and the prevailing ways of insinuation. To do this, the surest and most effectual remedy is to fix in the mind the clear and distinct ideas of the question stripped of words ; and so likewise, in the train of argumentation, to take up the author's ideas, neglecting his words, observing how they connect or separate those in question. He that does this will be able to cast off all that is superfluous ; he will see what is pertinent, what coherent, what is direct to, what slides by, the question. This will readily show him all the foreign ideas in the discourse, and where they were brought in ; and though they perhaps dazzled the writer, yet he will perceive that they give no light nor strength to his reasonings. •

This, though it be the shortest and easiest way of reading books with profit, and keeping one's self from being misled by great names or plausible discourses : yet it being hard and tedious to those who have not accustomed themselves to it, it is not to be expected that every one (amongst those few who really pursue truth) should this way guard his understanding from being imposed on by the wilful (or at least undesigned) sophistry, which creeps into most of the books of argument. They that write against their conviction, or that next to them are resolved to maintain the tenets of a party they were engaged in, cannot be supposed to reject any arms that may help to defend their cause ; and therefore such should be read with the greatest caution. And they who write for opinions they are sincerely persuaded of and believe to be true, think they may so far allow themselves to indulge their laudable affection to truth, as to permit their esteem of it to give it the best colours, and set it off with the best expressions and dress they can, —thereby to gain it the easiest entrance into the minds of their readers, and fix it deepest there.

One of those being the state of mind we may justly suppose most writers to be in, it is fit their readers, who apply to them for instruction, should not lay by that caution which becomes a sincere pursuit of truth ; and should make them always watchful against whatever might conceal or

misrepresent it. If they have not the skill of representing to themselves the author's sense by pure ideas separated from sounds, and thereby divested of the false lights and deceitful ornaments of speech ; this yet they should do—they should keep the precise question steadily in their minds, carry it along with them through the whole discourse, and suffer not the least alteration in the terms, either by addition, subtraction, or substituting any other. This every one can do who has a mind to it ; and he that has not a mind to it, it is plain, make his understanding only the warehouse of other men's lumber ; I mean false and un-concluding reasonings rather than a repository of truth for his own use, which will prove substantial, and stand him in stead when he has occasion for it. And whether such an one deals fairly by his own mind, and conducts his own understanding right, I leave to his own understanding to judge.

**43. Fundamental verities.**—The mind of man being very narrow, and so slow in making acquaintance with things, and taking in new truths, that no one man is capable, in a much longer life than ours, to know all truths ; it becomes our prudence, in our search after knowledge, to employ our thoughts about fundamental and material questions,—carefully avoiding those that are trifling, and not suffering ourselves to be diverted from our main even purpose by those that are merely incidental. How much of many young men's time is thrown away in purely logical inquiries, I need not mention. This is no better than if a man, who was to be a painter, should spend all his time in examining the threads of the several cloths he is to paint upon, and counting the hairs of each pencil and brush he intends to use in the laying on of his colours. Nay, it is much worse than for a young painter to spend his apprenticeship in such useless niceties ; for he, at the end of all his pains to no purpose, finds that it is not painting, nor any help to it, and so is really to no purpose ; whereas men designed for scholars have often their heads so filled and warmed with disputes on logical questions, that they take those airy useless notions for real

and substantial knowledge, and think their understandings so well furnished with science, that they need not look any further into the nature of things, or descend to the mechanical drudgery of experiment and inquiry. This is so obvious a mismanagement of the understanding,—and that in the professed way to knowledge,—that it could not be passed by ; to which might be joined abundance of questions, and the way of handling of them in the schools. What faults in particular of this kind every man is or may be guilty of, would be infinite to enumerate ; it suffices to have shown that superficial and slight discoveries, and observations that contain nothing of moment in themselves, nor serve as clues to lead us into further knowledge, should not be thought worth our searching after.

There are fundamental truths that lie at the bottom, the basis upon which a great many others rest, and in which they have their consistency. These are teeming truths, rich in store, with which they furnish the mind, and, like the lights of heaven, are not only beautiful and entertaining in themselves, but give light and evidence to other things, that without them could not be seen or known. Such is that admirable discovery of Mr. Newton, that all bodies gravitate to one another, which may be counted as the basis of natural philosophy ; which, of what use it is to the understanding of the great frame of our solar system, he has to the astonishment of the learned world shown ; and how much further it would guide us in other things, if rightly pursued, is not yet known. Our Saviour's great rule, *that we should love our neighbour as ourselves*, is such a fundamental truth for the regulating human society, that I think by that alone one might without difficulty determine all the cases and doubts in social morality. These, and such as these, are the truths we should endeavour to find out and store our minds with. Which leads me to another thing in the conduct of the understanding that is no less necessary, viz.—

**44. Bottoming.**—To accustom ourselves, in any question proposed, to examine and find out upon what it bottoms. Most of the difficulties that come in our way,



when well considered and traced, lead us to some proposition which, known to be true, clears the doubt, and gives an easy solution of the question ; whilst topical and superficial arguments,—of which there is store to be found on both sides, filling the head with variety of thoughts and the mouth with copious discourse,—serve only to amuse the understanding, and entertain company without coming to the bottom of the question, the only place of rest and stability for an inquisitive mind, whose tendency is only to truth and knowledge.

For example, if it be demanded, whether the Grand Signior can lawfully take what he will from any of his people ; this question cannot be resolved without coming to a certainty whether all men are naturally equal,—for upon that it turns. And that truth, well settled in the understanding, and carried in the mind through the various debates concerning the various rights of men in society, will go a great way in putting an end to them and showing on which side the truth is.

**45. Transferring of thoughts.**—There is scarcely any thing more for the improvement of knowledge, for the ease of life, and the despatch of business, than for a man to be able to dispose of his own thoughts ; and there is scarcely anything harder in the whole conduct of the understanding than to get a full mastery over it. The mind, in a waking man, has always some object that it applies itself to ; which, when we are lazy or unconcerned, we can easily change, and at pleasure transfer our thoughts to another, and from thence to a third, which has no relation to either of the former. Hence men forwardly conclude, and frequently say, nothing is so free as thought ; and it were well it were so. But the contrary will be found true in several instances ; and there are many cases wherein there is nothing more resty and ungovernable than our thoughts : they will not be directed what objects to pursue, nor be taken off from those they have once fixed on, but run away with a man in pursuit of those ideas they have in view, let him do what he can.

I will not here mention again what I have above taken

notice of, how hard it is to get the mind,—narrowed by a custom of thirty or forty years' standing to a scanty collection of obvious and common ideas,—to enlarge itself to a more copious stock, and grow into an acquaintance with those that would afford more abundant matter of useful contemplation ; it is not of this I am here speaking. The inconvenience I would here represent and find a remedy for, is the difficulty there is sometimes to transfer our minds from one subject to another, in cases where the ideas are equally familiar to us.

Matters that are recommended to our thoughts by any of our passions, take possession of our minds with a kind of authority, and will not be kept out or dislodged ; but,—as if the passion that rules were, for the time, the sheriff of the place, and came with all the posse,—the understanding is seized and taken with the object it introduces, as if it had a legal right to be alone considered there. There is scarcely anybody I think of so calm a temper who hath not sometime found this tyranny on his understanding, and suffered under the inconvenience of it. Who is there almost whose mind, at some time or other, love or anger, fear or grief, has not so fastened to some clog, that it could not turn itself to any other object ? I call it a clog, for it hangs upon the mind so as to hinder its vigour and activity in the pursuit of other contemplations ; and advances itself little, or not at all, in the knowledge of the thing which it so closely hugs and constantly pores on. Men thus possessed are sometimes as if they were so in the worse sense, and lay under the power of an enchantment. They see not what passes before their eyes, hear not the audible discourse of the company ; and when by any strong application to them they are roused a little, they are like men brought to themselves from some remote region ; whereas in truth they come no farther than from their secret cabinet within, where they have been wholly taken up with the puppet, which is for that time appointed for their entertainment.

The shame that such dumps cause to well-bred people, when it carries them away from the company, where they should bear a part in the conversation, is a

sufficient argument that is a fault in the conduct of our understanding not to have that power over it as to make use of it to those purposes, and on those occasions, wherein we have need of its assistance. The mind should be always free and ready to turn itself to the variety of objects that occur, and allow them as much consideration as shall for that time be thought fit. To be engrossed so by one object as not to be prevailed on to leave it for another that we judge fitter for our contemplation, is to make it of no use to us. Did this state of mind remain always so, every one would, without scruple, give it the name of perfect madness ; and whilst it does last, at whatever intervals it returns, such a rotation of thoughts about the same object no more carries us forward towards the attainment of knowledge, than getting upon a mill-horse whilst he jogs on in his circular track would carry a man a journey.

I grant something must be allowed to legitimate passions and to natural inclinations. Every man, besides occasional affections, has beloved studies, and those the mind will more closely stick to ; but yet it is best that it should be always at liberty, and under the free disposal of the man, and to act how and upon what he directs. This we should endeavour to obtain unless we would be content with such a flaw in our understanding, that sometimes we should be, as it were, without it ; for it is very little better than so in cases where we cannot make use of it to those purposes we would, and which stand in present need of it.

But before fit remedies can be thought on for this disease, we must know the several causes of it, and thereby regulate the cure, if we will hope to labour with success.

One we have already instanced in, whereof all men that reflect have so general a knowledge, and so often an experience in themselves, that nobody doubts of it. A prevailing passion so pins down our thoughts to the object and concern of it, that a man passionately in love cannot bring himself to think of his ordinary affairs, or a kind mother, drooping under the loss of a child, is not able to bear a part as she was wont in the discourse of the company or conversation of her friends.

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But though passion be the most obvious and general, yet it is not the only cause that binds up the understanding, and confines it for the time to one object from which it will not be taken off. Besides this, we may often find that the understanding,—when it has a while employed itself upon a subject which either chance or some slight accident offered to it, without the interest or recommendation of any passion,—works itself into a warmth, and by degrees gets into a career; wherein, like a bowl down a hill, it increases its motion by going, and will not be stopped or diverted; though, when the heat is over, it sees all this earnest application was about a trifle not worth a thought, and all the pains employed about it lost labour.

There is a third sort, if I mistake not, yet lower than this; it is a sort of childishness, (if I may so say,) of the understanding, wherein, during the fit, it plays with and dandles some insignificant puppet to no end, nor with any design at all, and yet cannot easily be got off from it. Thus some trivial sentence, or a scrap of poetry, will sometimes get into men's heads, and make such a chiming there, that there is no stilling of it; no peace to be obtained, nor attention to any thing else, but this impertinent guest will take up the mind and possess the thoughts in spite of all endeavours to get rid of it. Whether every one hath experimented in themselves this troublesome intrusion of some frisking ideas which thus importune the understanding, and hinder it from being better employed, I know not. But persons of very good parts, and those more than one, I have heard speak and complain of it themselves. The reason I have to make this doubt, is from what I have known in a case something of kin to this, though much odder, and that is of a sort of visions that some people have lying quiet, but perfectly awake, in the dark, or with their eyes shut. It is a great variety of faces, most commonly very odd ones, that appear to them in a train one after another; so that having had just the sight of the one, it immediately passes away to give place to another, that the same instant succeeds, and has as quick an exit as its leader; and so they march on in a constant succession; nor can any one

of them by any endeavour be stopped or retained beyond the instant of its appearance, but is thrust out by its follower, which will have its turn. Concerning this fantastical phenomenon I have talked with several people, whereof some have been perfectly acquainted with it, and others have been so wholly strangers to it that they could hardly be brought to conceive or believe it. I knew a lady of excellent parts, who had got past thirty without having ever had the least notice of any such thing; she was so great a stranger to it, that when she heard me and another talking of it, could scarce forbear thinking we bantered her; but sometime after, drinking a large dose of dilute tea (as she was ordered by a physician) going to bed, she told us at next meeting, that she had now experimented what our discourse had much ado to persuade her of. She had seen a great variety of faces in a long train, succeeding one another, as we had described; they were all strangers and intruders, such as she had no acquaintance with before, nor sought after then; and as they came of themselves they went too; none of them stayed a moment, nor could be detained by all the endeavours she could use, but went on in their solemn procession, just appeared and then vanished. This odd phenomenon seems to have a mechanical cause, and to depend upon the matter and motion of the blood or animal spirits.

When the fancy is bound by passion, I know no way to set the mind free and at liberty to prosecute what thoughts the man would make choice of; but to allay the present passion, or counterbalance it with another, which is an art to be got by study, and acquaintance with the passions.

Those who find themselves apt to be carried away with the spontaneous current of their own thoughts, not excited by any passion or interest, must be very wary and careful in all the instances of it to stop it, and never humour their minds in being thus triflingly busy. Men know the value of their corporeal liberty, and therefore suffer not willingly fetters and chains to be put upon them. To have the mind captivated is, for the time, certainly the greater evil of the two, and deserves our utmost care and

endeavours to preserve the freedom of our better part. In this case our pains will not be lost ; striving and struggling will prevail, if we constantly, in all such occasions, make use of it. We must never indulge these trivial attentions of thought ; as soon as we find the mind makes itself a business of nothing, we should immediately disturb and check it, introduce new and more serious considerations, and not leave till we have beaten it off from the pursuit it was upon. This, at first, if we have let the contrary practice grow to a habit, will perhaps be difficult ; but constant endeavours will by degrees prevail, and at last make it easy. And when a man is pretty well advanced, and can command his mind off at pleasure from incidental and undesigned pursuits, it may not be amiss for him to go on further, and make attempts upon meditations of greater moment ; that at the last he may have a full power over his own mind, and be so fully master of his own thoughts, as to be able to transfer them from one subject to another, with the same ease that he can lay by any thing he has in his hand and take something else that he has a mind to, in the room of it. This liberty of mind is of great use both in business and study ; and he that has got it will have no small advantage of ease and despatch, in all that is the chosen and useful employment of his understanding.

The third and last way which I mentioned the mind to be sometimes taken up with,—I mean the chiming of some particular words or sentence in the memory, and, as it were, making a noise in the head, and the like,—seldom happens but when the mind is lazy, or very loosely and negligently employed. It were better indeed be without such impertinent and useless repetitions ; any obvious idea, when it is roving causelessly at a venture, being of more use and apter to suggest something worth consideration, than the insignificant buzz of purely empty sounds. But since the rousing of the mind, and setting the understanding on work with some degrees of vigour, does for the most part presently set it free from these idle companions ; it may not be amiss whenever we find ourselves troubled with them, to make use of so profitable a remedy that is always at hand.

NOTES

N. B. Where the words from the text—printed in antique—are followed by a dash, the note is a para-phrase of such words only ; but where a note is preceded by a colon, it has reference to the whole or a part of the sentences from which the words in antique are taken]

[Introduction.] **Last resort**—the ultimate means. **Conduct**—guidance. **Understanding** the faculty of forming judgments on the knowledge derived through the senses, as well as on all notions ideas &c.* In this sentence, the author means that if we analyse the mode in which men guide themselves, we find that their actions are ultimately to be traced to their understanding. **Distinguish** : divide the human mind into separate faculties or Powers (such as Memory, Will, Reasoning &c.) **Agent** : as if the will were the individual that acts. † **Which is the agent** : which is now no longer used as a personal relative ; but that use is quite common in Shakespeare and the English Bible (Cf. "Our Father which art in Heaven" in Christ's Prayer.) The Anglo-Saxon form *hwilc* is made up of the ablative case of *hwa*, *hwæt* i.e. *who*, *what*, and the suffix *lic*, the modern *like*. **Determines himself**—decides upon. **Precedent**—already possessed. **Appearance** : what seems to him to be true knowledge. [This qualification reminds one of the Socratic theory—that men act wrongly through false knowledge, which is real ignorance, and that to be virtuous is the same thing as truly knowing how to act rightly.] **Serves him** : though it may

* In his great Essay *Of the Human Understanding*, Locke does not give a formal definition of *Understanding*, but he seems to use it as synonymous with *Intellect*, or *Cognitive Powers*, or, as he expresses it *the discerning faculties of a man*. He speaks of his Essay as an inquiry "unto the original (*i.e.* origin), certainty, and extent of human knowledge, together with the grounds and degrees of belief, opinion, and assent."

† In his *Essay*, Ch. XXI, Locke guards against the error of regarding the faculties generally—and the Will in particular—as separate agents : "The power which the mind has to order the consideration of any idea, or the forbearing to consider it : or to prefer the motion of any part of the body to its rest, and *vice versa*, in any particular instance, is that which we call the Will." * * * The Will in truth signifies nothing but a power or ability to prefer or choose ; and when the Will under the name of a *faculty* is considered as it is, the absurdity in saying it is free, will easily discover itself. For if it be reasonable to suppose and talk of faculties, as distinct beings that can act (as we do when we say the Will orders) it is fit that we should make a speaking faculty, a walking faculty and a dancing faculty, by which those actions are produced ; as well as we make the Will and the Understanding to be faculties, by which the actions of choosing and perceiving are produced—which we but several modes of thinking * * * To the question, What is it determines the Will?—the true and proper answer is, The Mind.* * * The motive for continuing in the same state or action, is only the present satisfaction in it ; the motive to change, is always some uneasiness. This is the great motive that works on the mind—which we will call determining of the Will."

not be worthy to be called a reason. (Mark how careful Locke is not to be misunderstood.) **Such light**—the amount of knowledge—large or small. **Operative powers**: called *Active powers* by Reid,—the powers or faculties of the mind which lead to action (as distinguished from the *Cognitive* powers, which are concerned with knowledge.) **How absolute**: Locke did not hold the extreme form of the doctrine of the Freedom of the will, and calls it a misuse of terms to call the will free. **Images in men's minds**: The author is evidently thinking of the *Idola* or "idols", described by Bacon, in his *Novum Organum*.^{*} **Concernment**—importance. The word is nearly obsolete now. **Judgments**: decisions arrived at by the Understanding.

Long possessed the chair—been taught by professors in universities &c. The logic of Aristotle is of course meant. **Direction**—Directing, or training. ("Direction of the mind" would mean now the tendency or bent of the mind). **Affectation**: an undue preference for what is new. **Served world**—been sufficient for scholars and philosophers. **Two or three thousand** Traced from Aristotle (390-322 B. C.) the rules of scholastic logic were about 2000 years old in Locke's time. But there was a theory that Greek philosophy was borrowed (in its essentials, at any rate) from the Egyptians, or other Eastern nations, by whom it was cultivated centuries, or even thousands of years, before.

Page 2. Rested in—Been content with. **Doubt but**: quite common in Addison and older writers, but now replaced by *doubt that*. **This attempt**: to question the sufficiency of the rules of logic. **Lord Verulam**: This is more correct than *Lord Bacon*, for Francis Bacon received the peerage with the title of Baron Verulam, and then Viscount St. Albans. **Servilely**—slavishly (following old opinions). **Did not rest**: instead of merely praising what existed, for its antiquity, tried to conceive how much greater it might become. **Because it was &c.**: these words pithily express the attitude of blind veneration for antiquity, and of narrow conservatism. See p. 38. Bacon refuted the common fallacy about the wisdom of our ancestors, based on the analogy of the wisdom of old men in a particular generation; observing that "we are the ancients of the earth," that our forefathers belonged to the *juventus mundi*, or youth of the world. **Enlarged ... might be**: Cf. "That which they (i. e. men) have done but earnest of the things that they shall do." ... Tennyson's *Locksley Hall*. (See *Novum Organum*, Part I. Sec VI). **Qui summas**. The translation of the passage is given in the para that follows. It is taken from the preface to Bacon's

* Bacon's *Idola* are the false notions which have taken deep root in the minds of men. Four sets of these are enumerated—1. *Idola tribus* (of the tribes—i. e. based on the fallibility of human nature itself), 2. *Idola specus* (of the cave, i. e. the errors due to the nature, education &c. of each individual), 3. *Idola fori* (of the market-place—i. e. found in human intercourse, the imperfections of language &c.), 4. *Idola theatri* (of the theatre—i. e. of the received systems of philosophy.)

Instauratio Magna, (great scheme of new philosophy) of which—the *Novum organum*, that is New Instrument, was meant to be the second part.

Guard of: The phrase would not be quite idiomatic now—"being guarded by" or some equiv. phrase would be used. **Took place**—was established. The phrase would now be used only of events. **Civil affairs:** *Civil* is no longer used as quite synonymous with *political*, as here. **Arts ... opinion:** Bacon speaks contemptuously of the philosophy which prevailed in the Middle ages, as consisting of mere clever disputations.

Subtlety: the form used by Locke (and other writers of his time) was *subtilty*. **Far short ... nature:** Bacon was never tired of dwelling on the infinite complexity of natural phenomena, Cf. "The subtilty of nature far exceeds the subtilty of the sense and understanding; so that the sublime meditations, speculations and reasonings of men are but a kind of madness." *Nov. Org.* Aphorism 10. **Introduced:** read *introduced*. **Necessario &c:** The translation of this is to be found in the preceding sentence.

Sec. 2. Parts. *Part* means the talents, or mental capacities, of different men. **Art**—training, or human effort generally.

Page 3. Woods of America: the barbarous Red Indians. **Several degrees**—various gradations (of intellectual power). **Pretend**—Aspire.

Sec. 3. Determined—Definite. **Intermediate:** ideas to be used in arriving at other ideas. **Miscarriages**—ways of going wrong: guiding themselves so as to fail. **This faculty** viz. reason. **Discourses**—speeches and writings. **Ministers**—clergymen.

Who else (*whom* would be more grammatical than *who*, here)—anybody whom they happen to choose as worthy of unquestioning trust. **The saving of:** *Saving* by itself would be used now instead of this phrase. **Put passion:** prefer to be guided by passion, rather than by reason. **Resolved that:** *that* refers to passion. **Neither use:** Refuse to be guided either by their own reason, or by the reason of others, wherever such reason is opposed to their caprice, interest &c. **No distinct ideas:** though the words only convey very vague ideas to them.

Page. 4. Come—indifferency to: in which they have no feelings to make them partial, or inclined to go wrong. *Indifferency* means impartiality—a very common use in the English of the 16th century. Cf.—"This commodity (i. e. self-interest) Makes it take head from all *Indifferency*, From all direction, purpose, course, intent"; (Shak. *King John*, act II.) **Tractable:** easily swayed by reason.

Round-about—Thorough; not defective in any respect. The phrase is now used only in the sense of "not straight, unnecessarily long". **Of moment**—indispensable. **Conclude not right**—come

to a wrong conclusion. [This source of error is dealt with in a very interesting and masterly manner in Herbert Spencer's *Study of Sociology*, ch. V.] **Proudest esteemer**—he who has an absurdly high opinion of his own powers. **Prospects**—views. **Different ... positions**: what may be called our various stand-points. **Incongruous**—absurd. **Its consequences**: the conclusions reached by the power of reasoning from the facts on which such reasoning is based. **It oftenest ... a part**: we are led astray by our reasoning faculties, only or chiefly when we start from partial or imperfect data. **Principles**: used here for the data of reasoning.* But the use of this word shows that the author is thinking of deductive reasoning, though it is in arguing from particulars to generals, or inductively, that the imperfect nature of our observations vitiates our conclusions. **Bottom**—base. **Go ... reckoning**—be taken into account. **Separate spirits**: *separate* seems to mean here disembodied,—souls that are separated or freed from the bondage of the flesh and are not obliged to derive knowledge only through the few imperfect organs of sense. Cf. "Spirits render'd free" Tennyson's *In Memoriam*, 38.

Several degrees: mark Locke's unquestioning belief in the existence of a hierarchy of angels and higher beings—through all the gradations of which the human soul was sometimes thought destined to pass. For the grounds of this belief, see L.'s *Essay*, B. IV. ch. XI. Compare Hooker's *Ecclesiastical Polity*, Book I. ch. v. This faith seems more comforting to most minds than the other form of belief in immortality, which is thus characterised by Tennyson:—

That each, who seems a separate whole
Should move his rounds, and fusing all
The skirts of self, again shall fall
Remerging in the general Soul,
Is faith as vague as all unsweet;
Eternal form shall still divide
The Eternal Soul from all beside.—11

In Memoriam, 47.

Comprehensive—Wide in range; less limited. **Collect ... relations**: make a synthesis—combine into one whole,—all the manifold relations in which these finite beings can be viewed. **A mind**: A new and superfluous nominative (it) is introduced in the next line. **So furnished**—Endowed with such powers. **What reason &c.** It is only such a mind that can, with perfect reason, admit the conclusions it forms, as certainly true. Compare Pope's *Essay on man* Ep. I.

Page 5. Uncertainly (obsolete)—confusedly. **Come in the hearing**—allow themselves to listen. **Canton out**—Parcel, or apportion (instead of occupying the whole country, as it were). **A little Goshen**—A limited area (such as was assigned to the Israelites in Egypt. See Book of Genesis, ch 46-7). **Light shines &c.**: which they look upon as containing all the opinions and knowledge that are true. A reference to one of the ten plagues,

the plague of darkness, which Moses is said to have brought on Egypt through God's favour, to persuade the Pharaoh (king) to let the Israelites depart out of Egypt: "And Moses stretched forth his hand towards heaven; and there was a thick darkness in all the land of Egypt for three days * * * but all the children of Israel had light in their dwellings."... *Exodus*, ch x, 22-3. **Expanse**: - *Expanse* had not become current in Locke's time, it would seem. **Give up**... Suppose to be full of ignorance and superstition.

Pretty traffic—some little commerce, or intercourse. *Pretty* is almost equiv. to *petty* here. **Correspondents** (used in a wider sense than is current now-a-days) men with whom they exchange views agreeable to both parties. **Wares**—goods. **Great ocean**: such narrow-minded scholars are compared to people carrying on a miserable coasting traffic, not daring to engage in international commerce. **Other parts**—Foreign countries (no longer idiomatic in this sense). **Admired**: for *admirable*—a common use in Eliz. English. Cf. "Admired Miranda! Indeed the top of admiration." ... *Tempest*, iii. 1.

Mewed up—closely confined. **Territories**: here 'spheres of thought.' **Not amiss**: Those men may not inappropriately be compared &c. **Marian islands**: a cluster of some 20 islands in the Pacific ocean—only 5 of them inhabited—near the Equator and to the north of New Guinea, so called from the name of the then Queen of Spain. They were discovered in 1521 by the great Portuguese navigator, Magelhaens (or Magellan) who named them the Ladrões, or Thieves' Islands. **Straitness**—scanty nature; limited command. **Acapulco**: a seaport town of Mexico. **Manilla**: in the Philippine islands. **Notice**... life—the knowledge of various nations which had made great progress in science &c.

Page 6. For all that—notwithstanding their blind national vanity. **Naturalists**: the word is now restricted to those versed in Zoology and Botany—knowledge of the animal and vegetable kingdoms of nature. But here Locke uses it in the older and wider sense—'men versed in the knowledge of natural phenomena generally' (such knowledge being contrasted with Metaphysics and Theology.) **Enlarged**—comprehensive; not narrow. **Commerce**: this use of the word—synonymous with *intercourse*—is now technical; in law. **Assisted with letters**: whose culture has been helped forward by literature, as well as by freely examining what other men have thought, felt and written, from various points of view.

Narrow prospect: Let not those who love truth—and the whole truth,—willfully shut their eyes to any side of it. **Pre-judge**—condemn beforehand, i. e. be hastily prejudiced against. **Not to show**: proves that we are blind, and not that such notions are false. **Try... good**: St. Paul, in his first Epistle to the Thessalonians, (ch. V.) says—"Despise not prophesyings; prove all things; hold fast that which is good." (Here *prove*—put to proof, try.)

Employs his pains—puts himself to much trouble. **Deceived** ... **mixture**—confound the dross &c. with the gold as equally valuable. **Natural reason**—common sense. **Overweening**—conceited; arrogant. **Want of exercising it**: the phrase would not be idiomatic now. **Full extent**...**intelligible**: the whole range of things knowable by the intellect or the understanding. *Intelligible* is here used in the literal or philosophical sense, and is contrasted with *sensible*, or knowable through the senses. **Trace it**—apply it (to various cases.)

Page 7. Outdo—surpass. **Country gentleman**: For a very interesting account of the country gentlemen or squires of the time, consult Macaulay's *History of England*, chap. III. **Strain** (*lit* stock or race)—order; class. **Can away**: cannot get on with any society in which the talk is of a higher kind, is not confined to drunken mirth and indecent jests. **Patriot**: The country gentlemen constituted the 'country party,' (corresponding to the Whigs) in opposition to the court party, and were called half contemptuously, the 'Patriots.' **Happy way**—fitting manner. Locke rarely indulges in this kind of irony. **Improvement**—culture. **Notable**—remarkable (because absurd.) **Bench**—seat of a judge (of the County court). **Quarter-sessions**—sittings of the court held quarterly. The Courts of Quarter Sessions have not, at the present day, to administer the law, or try prisoners. They test accounts, and discuss local matters their functions somewhat corresponding to those of District Boards in Bengal. See Escott's *England: its People, Polity &c.* ch. IV. **Skill**—knowledge (a meaning almost obsolete.) Here it is ignorance that is implied. **Strength**..**purse**—influence as a wealthy man. **Coffee house gleaner**—one who picks up news and politics at coffee-houses (then the resort of politicians, literary men &c. in London.) **Arrant** (some editions read *errant*)—downright (always used in an unfavourable sense.); may be really called a statesman when compared to a fox-hunting squire. **Conversant &c**: familiar with the Palace &c. (Whitehall being then the chief town residence of the king.)

Muffled up—closely wrapped up; with the freedom of his mind lost. **Infallibility**: his belief that the opinions of his own sect can never be wrong. **Equitable**—just. **Indifference**—impartiality. **Unexceptionable**—quite free from blame. **Fallible**: for *fallibility*. **In those**: to be connected with *meets*. **To be said for**: considerations in their favour. **These two**: the narrow-minded bigot and the impartial man. **The mark**: which (truth) is what all say they seek. **Instanced in**—brought forward to illustrate my argument. **Unequally advanced**: some being ignorant, and others well-informed. **I suppose**: the object is *all these men*. **Odds**—great difference. **Different scope**—greater or less freedom.

Page 8. Character he makes—opinion which he leads other people to form. **Answer that**—come up to these expectations.

To ... **geographer** : these words would come more appropriately after that. **Often sallies**—frequent excursions, *Often* seems to be used here as an adj.—as it sometimes is, in *Eliz. Eng.* Cf.—“My often rumination wraps me in a humorous sadness” —*Jacques in As you Like It*, IV. 1. **Mill-horse** : “The oil-man’s ox” in the familiar Bengali saying. **Material authors**—writers of the greatest weight or authority. **Infinite work** : will find that it will take so very long, &c. **Latitude**—extent ; range. **Scattered parts**—detached fragments of truth (some to be met with among one sect, others among another, &c.) **Widely out altogether wrong**. **Miss giving** : he will generally be able to show that his thoughts are clear and his knowledge extensive. **Logical chicaner**—skilful sophist ; one who tries to mislead by appearing to argue very logically. **Send abroad**—extend far and wide. **All parts** : all the parts or domains of the intellectual world. Cf. “other parts”, p. 5. **Determined**—clear, definite ; not vague. **Give beauty** : regard as either admirable, or detestable.

Page 9. Sec. 4. Brought to the carriage : trained to behave and speak like a gentleman. **Joints as supple** : so that he has not a natural stiffness, preventing him from bowing elegantly, for instance. **Change their parts** : ask the musician to dance &c. **Members**—parts of the body. **Tumblers** : now usually called *aerobats* (as in a circus.) **Not but that**—though indeed. **Sundry** various actions or feats done by skilful artizans. **Use and industry** : use here means practice.

Endowments—gifts. **Narrowly**—closely. **Pleasantness**—agreeable humour. **Raillery**—jests. **Apologues**—fables. **Apposite &c.**—appropriate anecdotes. **Pure nature**—natural gifts only. **That the rather**—all the more so. The phrase is rarely used now-a-days. **Took with**—was admired by.

Page 10. Poetic vein—natural turn for poetry. **Westminster Hall** : i. e. the Law-courts. **Genius**—peculiar manner, or quality. **City**—that part of London which is the centre of commerce, banking &c.

To what purpose—the drift of my arguments. **Country hedger**—a clownish rustic (*lit* one who makes or repairs fences to fields.) **Handsomely**—elegantly. **Extempore**—on the spur of the moment ; at one stroke, as it were. **Coherent**—systematic : not loose.

Mislaid—wrongly charged, or attributed. **Making a bargain**—buying things cheap.

Page 11. Sec. 5. Sounds put : mere words, used for those ideas. **Of settling** : i. e. the importance of fixing beforehand the sense in which we use the words. **Another place** : in his great *Essay on the Human Understanding*, where the Book (*viz.* B. III.) on the use and abuse of words is one of the most valuable contributions ever made to that subject.

Many the like (a phr no longer current)—many other fallacies of a like nature (*Many* is gram. object of *make*.) **Measures**—means of estimating. **They falling**: this kind of construction is inadmissible now-a-days. **Positive**—fully assured; over confident.

There is not: If a man is not quite unreasonable, he must admit the above maxims to be unreliable when tested, and such as he would object to in other people. •

Page 12. Conduct them by—Make their understandings follow. **In earnest**—seriously. **They are persuaded**: They really believe that these principles are sound, though in a similar case they have been forced to admit the contrary. **Intolerable**: The truth is, people can not bear the thought of holding opinions for which they have no reasons to offer; and others would despise them if they pretended to have no such reasons.

Entertains—admits. **Hypothesis**: fundamental principle assumed as true. [All deductive reasoning is essentially hypothetical, starting from some truths taken as true; and Locke seems confine himself to such reasoning] **So much do**: This shows how naturally we are inclined to make a right use &c.

Concernment—anxious interest. **Nay, a contradiction**: when holding an opinion of so much importance, it would be intolerably absurd not to be able to say why one holds that and not some other opinion. **And to say**: It would be contrary to experience to say that they do not sincerely believe in these principles and rely on them: to say so would be to deny they are led astray by such principles.

Page 13. Visible—quite clear. **Whose case**: those who really want the natural gift of a clear intellect, should not be blamed. **Trace the dependence**: to see how any truth is derived, in a long series of steps, from fundamental truths. **Consequences**: equiv. here to inferences, or processes of reasoning. **And he that**: for the sake of clearness the nom. *he* is repeated before the verb 'should not be.' **No more wonder**—quite as natural. **Bring his mind**: train his mind to trace truths to remote principles. **Grave**—engrave. **Design**—make sketches, or draw plans.

The most of. *Most* here stands for 'most part.' 'Most men' is the form used now-a-days. **By rote**—in a mechanical way; according to routine. **That they conclude**: they ignorantly think they have perfect "thought or skill." **It serves their turns**—this imperfect kind of reasoning satisfies them. *Turns* in the plural would not be used now-a-days (in this sense.)

Succeeds: here=fails. This neutral meaning of *succeed* (and *success*) was formerly the usual one. *Prosper* may do as a synonym, as it still occasionally bears this neutral sense. **Cross**—unlucky; untoward. **Default**—fault, or shortcoming; (used of inanimate things only now.) **Traverses**—unlucky accidents.

NOTES.

Page 14. Speculative truths—philosophical or theological truths. **Laid together**—compared. **Three particulars**: as of ϵ , π , d .

Manual operation—work with the hands. **Address**—skill. **Fashioning**—moulding; adapting. **Betimes**—early. **In train**—in a series (one following another). **Born...if we please**: we are reasonable by virtue of our birth as human beings, if only we do not lose the gift by want of use.

Page 15. All rational: Some early editions give *at all rational*; but that seems to make the assertion too strong—quite unnecessarily so. (Para 2) **Take the thoughts**: If you try to lead a man (whose thoughts have long been confined to one groove) to think on other subjects, you will find him almost an idiot. **Perfect natural**—quite an idiot. **Compass**: all means of guiding themselves. **Nonplus** (*lit no more*)—inability to say or decide anything; standstill. (The phrase is rarely used now-a-days; *nonplussed* is somewhat more familiar.) **If they give...reasons**—if they yield to the reasons and cease to believe in the maxims. **Think there is**: become perfectly sceptical.

Page 16. The Americans: The Red Indians. [This opinion of Locke is erroneous; but in his time no thinker could be expected to appreciate the principle of heredity, which has been developed during the last fifty years. It may also be readily admitted that in some kinds of intelligence, the American Indian is equal, nay superior, to Europeans. But it is wrong to suppose that if Red Indians be brought up from infancy exactly like European children, they would not be found inferior in their power of acquiring the arts and sciences of civilized life, though it is quite possible that here and there some exceptional instances may be found.] **Reaches**—high attainments, or proficiency. **Continuing**:—if he had stayed at home, that one would have been quite on a level with the others.

Young scholars: Locke had spent several years as a tutor, and had some experience of boys. And his *Thoughts on Education* is still valued as one of the best books of its kind. See Introduction. **Open by degrees**—are gradually unfolded, or developed. **Stick at**—be stopped by; be unable to understand. **Plain way**—what is quite obvious.

Page 17. Sec. 7. Transfer.....knowledge: In the next sentence (concluding words...“Though in proofs” &c.) and the next para; the author points out the caution with which mathematical reasoning should be applied in departments of thought where the data are less definite. [There is, however, another vital difference, which the author does not notice; namely, that in most of the other sciences, great care should be taken in observing and collecting the facts, to which the reasoning is to be applied; whereas in mathematics, the facts are either supplied by other sciences, or are exceedingly simple. Thus the mind trained

in mathematical reasoning alone, is but imperfectly prepared to deal with other branches of knowledge.] **Bottoms** (intrans.)—rests, as the fundamental principle. **Coherence**—connection, or dependency. **Settle the judgment**—convince; establish the conclusion. **Demonstrative**—admitting of mathematical proof.

Laid in balance—carefully weighed.

In the schools—in scholastic philosophy or logic. [The disputing here referred was that prevalent among the schoolmen in the Middle Ages. And down to comparatively recent times, disputation was a recognized part of the teaching and examinations in the Universities of Oxford and Cambridge; as is shown by the name *Wrangler* still given to those who take the highest places in Cambridge Mathematical Tripos. Bacon is never tired of exposing the useless and mischievous character of such subtle disputations, and Locke makes further observations on them in Section 43 of this book, and in his greater work. The student will be reminded of the *bichar* among the pandits of this country, which so rarely leads to any satisfactory results, but only produces angry altercations.] **Topical**—having reference to some particular maxim or point. These *topics* were usually stock subjects of dispute argued over and over again. (Greek *topoi*=common places.) **Adjudged**—allotted, or assigned (by an umpire or person of authority.) **Opponent**: used in a limited sense—one who attacks an opinion; the assailant. **All one**—exactly the same. (*All* is an adv.,=altogether.) **Charged**—entered as a debt, or a receipt. **Hundred others**: Two men may have had many transactions; in ascertaining which of them has a balance in his favour, it would be absurd to confine the calculation to only one case of receipt and payment. **Must come.....reckoning**: when so many other views ought to be taken into account. **Presumption**—assuming a thing to be true before examination. **Precipitancy**—rash haste.

Page 18. Those methinks: It appears to me that those to whom their ancestors have left enough means, should cultivate their minds, and take some pains to familiarize themselves with various subjects of discourse. **Industry and parts**: It is of course only by superior powers of work or intelligence that people are usually enabled to leave wealth or competence to their children. **To their backs &c.**—to provide themselves with clothing and food. **Essays**—attempts; serious efforts. **Experimentally**—by actual trial. **Take off that presumption**—cure them of the unduly high opinion. [The first utility of the study of Mathematics to grown-up people, is, according to Locke, to teach humility. Compare what Prof. Blackie says in his *Self-culture*, P. 10, of the utility of studying Metaphysics.] **In this part**: as regards their power of understanding.

Habitudes—established relations (obsolete in this sense.) **Out.....reckoning**—altogether aside. (This rigid exclusion of all

irrelevant things, is one of the most valuable elements of mathematical training; it develops the faculty of 'abstraction.' Bacon, who classes mathematics as a branch of Metaphysics, speaks thus of its value as a mental discipline:—"If the wit be too dull, they sharpen it; if too wandering, they fix it; if too inherent in the sense, they abstract it. So that as tennis is a game of no use in itself, but of great use in respect it maketh a quick eye and a body ready to put itself into all postures; so in the Mathematics, that use which is collateral and intervenient, (i. e., indirect) is no less worthy than that which is principal and intended." *Advancement of Learning*, II viii.]

Besides quantity—other than mathematics. **So easily observed**: in other subjects, it is more difficult to make out what is relevant, and what is not. **In the lump**—in a vague, confused manner.

Page 19. Summary—hasty. **Raise probability**—make the desired conclusion appear probably true. **Straw**—light or unimportant consideration. **Give colour**: make an argument seem reasonable, or sound. *Colourable* is used to mean plausible.

Asunder—separately. **Influence it**: affect the conclusion. **Consequences**: See p. 14, l. 3.

Within the objection: The objection—that such men have neither time nor means to cultivate their minds,—is not valid. **Compassed**—attained.

Sec. 8. Mightily lies upon him—is an important duty of his. **Vacancies**—periods of rest. It is hardly used now in this sense, and *vacation* is used of longer periods. **And had but those** (last line): This last part of the sentence is obscure. The meaning seems to be—'if only men had the assistance of others willing to make them enter the proper path to religious knowledge, according' &c. *Enter* has here a causative force, = teach. 'Those who would enter them' are the ministers of religion, or clergymen. This is preferable to taking 'those' to refer to those who 'have other idle hours'—which would make the sentence ungrammatical.

Page 20. Several—respective. The *right way* would of course be different in men of different degrees of intelligence; men of strong intellect might profitably enter into a fuller course of such studies. **Original make**: *make* here means formation, or cast; and *original* = at birth. [Locke had no conception of the principles of heredity, and believed that the faculties of all human beings are the same at birth, and only differ afterwards from great variety in their surroundings, education, callings &c. This opinion was evidently a reaction from the extreme views about the natural inferiority of the lower orders, which were so fashionable in former times, and on which the system of caste has rested in all ages.] **Mean people**: *mean* has here no reference to moral inferiority (as it has now-a-days), but only to low birth or station.—

Some of the disciples of Christ, as well of other religious leaders, such as Chaitanya, belonged to humble stations in life; Luther was the son of a poor miner, George Fox (founder of the sect of Quakers) was a shoemaker, Bunyan was a tinker.

Clear ignorance—show that men of humble birth are not of necessity grossly ignorant. *Necessity* is here used in the philosophical sense of something certain or unavoidable. **Wearing the name**—though they call themselves Christians. [In all established religions, which have been current for a long time in a country, and in which assent is more or less compulsory, it must happen that a considerable number of professed followers are but nominally such. It is only in a new or persecuted sect, and in times of religious change, that every one professing a creed knows what he is about. This is borne out by what Locke says in the next sentence about the French Protestants, the Huguenots.] **Lately in France**: By revoking, in 1685, the Edict of Nantes which had been issued by Henry IV. of France, and which extended toleration to the persecuted minority of Protestants in that country) Louis XIV. compelled a large number of Huguenots, to leave the country, many of whom came over to England; the rest yielded to the pressure, and began to profess the Catholic faith. For this reason, the word *lately* is used.

Nearest concernment—most vital interest and importance to them. **Freer fortune**—such means as frees them from the necessity of working hard.

They were given them: The antecedent to *they* is *understandings*, which would not require to be used in the present now-a-days. The sentence means 'even if we conclude that the lower classes must remain sunk in gross ignorance in matters of religion, surely there is no excuse for such ignorance in men of means and education, whose intellects were given to them mainly for guiding them to a knowledge of such matters.' **So few but**: the number of such men is large enough to make us hope &c. **Largest views**...prospect extending over eternity (whereas other kinds of knowledge are concerned with *time*, i. e. this life).

Section 9. Ideas: For Locke's theory of Ideas, see Introduction. **Importune**—solicit; strongly impress. **Lively**—vivid, clear and strong. **Greater store**—a abundance (of impressions through the senses.) **Entertained**—received.

Page 21. For others: viz. "more abstract ideas." Locke means that there is danger of our minds being too much occupied with knowledge obtained directly through the senses; the difficulty lies in excluding, not in admitting them. [It should be noticed how completely Locke seems to ignore the importance of training the senses to observe more carefully, and of making the knowledge from this source a part of our mental possessions. See Introduction.] **Moral** as distinguished from *physical*. Those sciences that were concerned with human thought, or human affairs, were all formerly

included under *moral science*. **Third Book**: which deals with the use and abuse of words. [The following extracts from Ch. II. of that Book will illustrate the statement in the preceding sentence:—(1) "men stand not often to examine, whether the ideas they, and those they discourse with, have in their minds, be the same....(2) Because men would not be thought to talk barely of their own imaginations, *they often suppose their words to stand also for the reality of things*....Thirdly, because words are many of them learnt before the ideas are known for which they stand; therefore *some, not only children, but men, speak several words, no otherwise than as parrots do, only because they have been accustomed to those sounds.*"]

But to convince:—The illustration in this sentence exhibits Locke's views about the nature of knowledge as well as of morality. One can only know that he is under moral obligation to be just, if he understands clearly (1) what obligation is, and what justice is, and (2) the agreement of these two ideas. See Introduction. **And if men do find**: Locke points out the importance of having abstract ideas clearly settled in men's minds. Without that it is utterly impossible to form a correct judgment as to whether certain ideas have agreement, or disagreement; because ideas cannot be brought directly before the eye and compared; the only way in which they can be represented to the senses, is by means of sounds (i. e. words) to the ear. **Sensible**—Known through the senses.

No manner of conformity—'no similarity in form or nature; which are merely arbitrary symbols or signs (of the ideas.) This is a point strongly insisted upon by most modern metaphysicians. [In Ch. II. Book III. in Locke's great work, he seems to hold that men voluntarily invented words, which they found very convenient as signs of their ideas. This is inadmissible as a theory of the Origin of Language; but what he says of words being signs of ideas, "not by any *natural connexion* that there is between particular articulate sounds and certain ideas," is unquestionably true.] **Harbour**—Contain; *lit.* give shelter to. **Where real Existence**: This qualification is necessary, because there are compound ideas formed in the mind clearly enough, but understood to be without any actual objects in nature corresponding to those ideas: as a golden mountain, a flying man. **Chimeras**—monsters (fire breathing, fore-part like lions, hind part like dragons &c.); hence, vain or idle fancies. Locke deals with this point in ch. 30 (of B. III. of his great work,) of *Real and Fantastical Ideas*.

Page 22. Nobody.....clear—When any one is charged by another with having prejudices, he simply attacks the prejudices of his opponent, and fancies that he is thus proved to have no prejudices himself. **Not deal fairly**—delude; cherish prejudices". **Cataract**...A disease of the eye, in which the pupil seems closed with a whitish substance. The disease may often be cured

by a surgical operation, called **couching**, which consists in depressing the crystalline lens. **Who almost...** is there a single person who. **Mote...** a small particle, as of dust. **Beam**: The reference is to Christ's well-known saying in his sermon on the mount: "The hypocrite, cast out first the beam out of thine own eye; and then thou shalt see clearly to cast out the mote out of thy brother's eye."—*Matthew*, vii 3-5; or *Luke*, vi. 41-2.

• **Scrupulous...** Strictly careful.

Impostor... Deceiver. **Hoodwinks...** blinds (lit. by covering the eyes); imposes on. **With their eyes**—from their point of view; using their opinions or prejudices, to be guided by. **Self condemned**...wrong by his own admission. **Persuasion**...faith. The word means (i) the act of persuading, others, and (ii) as here, 'what one is persuaded or convinced of.' Sir Thomas Browne, however, draws a distinction between *faith* and *persuasion*: "I desire to exercise my faith in the difficultest point; for to credit ordinary and visible objects, is *not faith, but persuasion*."...*Religio Medici*, Sec. IX.

Assent.....greater: that he believes only so far as. In ch. XIX. Book IV. of his great work, L. says: "There are very few lovers of truth for truth's sake, even amongst those who persuade themselves that they are so.....There is this unerring mark of it, viz. the *not entertaining any proposition with greater assurance than the proofs it is built upon will warrant*. Whoever goes beyond this measure of assent loves not truth for truth's sake but for some other by-end."

Page 23. Profession...that he declares. **Anticipation**...what is believed *before* any proof has been obtained: presumption. **To rest**: not to be shaken by any doubts. [The words are well chosen. Many people feel it a positive torment to be in a state of doubt,—to have the repose of their minds broken by any damaging facts or arguments. This feeling constitutes the strength of conservatism in every community. Helps says in his *Thoughts in the Cloister and the Crowd*: "The unfortunate Ladurlad did not desire the sleep that for ever fled his weary eyelids, with more earnestness, than most people seek the *deep slumber of a decided opinion*." And Mill, in his famous *Essay on Liberty* (Ch. II.), says: "The fatal tendency of mankind to leave off thinking about a subject when it is no longer doubtful, is the cause of half their errors."]

They be proof or not: Here *proof*=able to stand a test (as in *proof-spirit, fire-proof* &c.) **Excess of adherence**—belief which goes further, or is stronger, than is justified by evidence. **In effect**—virtually. **Forward**—rash. **Which, what is it—and what is this**. This use of *which* would not be idiomatic now-a-days. **Qui æquum**: Even if a man believes what is right, he cannot be said to be fair or impartial if he does so without listening to the other side.

Acquit himself as—play satisfactorily the part of.

Preoccupation—prejudice.

Sec. 11. Indifferency—impartiality. **Custom**—(here) prevailing belief.

Page 24. Propagator—circulator.

Sec. 12. As judging—because he regards such examination. **Whether fewer**: I shall not decide which of the two is rarer—the courage to examine one's cherished views, or the ability to do so. **Surer way**: Explained in the next sentence. **Bantered**—made fun of; befooled.

Strange to be set about it: Are no less surprised when told to examine their own minds, as when asked to settle an account from a tradesman's day-book. **Concerned**: where it is a matter of deep importance to believe what is true.

Page 25. In these..... understanding: Locke here explains what freedom of the understanding is, without^o which a man cannot be called rational, or indeed be said to possess understanding at all. This freedom is made up of two things: (i) disposition to welcome all truth *as truth*, and not for any other reason; (ii) refusing to acknowledge a reason from any principles till we are convinced, after sufficient examination, that they are sound and well-established. **Conceit**—ill-grounded opinion (a meaning almost out of use now, but the most ordinary meaning in older English.) **Extravagance**—wild flight of the imagination; a piece of folly. **Constraint**—compulsion. **Their own.....evidence**: what Locke means by *fancied evidence* is clear from his chapter on "Enthusiasm" in his great work: "They feel the hand of God moving them within, and the impulses of the spirit,... and what they have a sensible experience of, admits of no doubt, needs no probation..... This is the way of talking of these men; they are sure because they are sure: and their persuasions are right, because they are strong in them. For when what they say is stripped of the metaphor of seeing and feeling, this is all it amounts to;... whatever they may call it, it is not seeing, but believing."—ch xix, B. IV.

The world is apt: Men who possess such *indifferency*, are supposed to be *indifferent* in the other sense of the word, as to the truth of opinions. At all times, but especially in times of strong faith, people can make no allowances for those who try to see both sides to a question and are not staunch believers in this or that set of opinions; they are dubbed trimmers, sceptics, or even atheists.

Not indifferent which opinion is true—eager to believe in the truth of some, particular opinion. [This distinction between the two kinds of *indifference* is here very cleverly, almost wittily, pointed out. The 'wish to believe' something is more than half

the belief; it blinds one to whatever goes against the belief.] **And it is visible:** It is quite clear that they have themselves never made any objections to their opinion. **Nor are concerned**—and do not care.

Page 26. Miscarriages—False steps; ways in which men fail to attain truth. **Rectify**—correct. **Business whereof**—the function, or aim of education. [Nothing is more common than for people to take a narrow utilitarian view of education, and ask of what use is this or that subject in the future career of a student? Most people in this country, even amongst the so-called educated men, are unable to appreciate the value of liberal education in developing the mental powers, and qualifying men to acquire practical knowledge more easily and thoroughly, and to become better citizens. In his *Thoughts concerning Education*, Locke goes into this point more fully. Mill, in his *Inaugural Address at St. Andrews*, expresses this idea very simply and clearly: "Men are men before they are lawyers, or physicians, or merchants or manufactures; and if you make them capable and sensible men, they will make themselves capable and sensible lawyers or physicians," by bringing "the light of general culture to illuminate the technicalities of a special pursuit."]

Well principling—Properly grounding (a student in knowledge) **Dogmas**—authoritative opinions, or doctrines. **Specious**—plausible; outwardly attractive or imposing. **Often the cause:** when men have been brought up in mere unreasoning respect for some doctrines, it often happens that they cease to believe anything at all when on coming out into the world they find that those doctrines can not be reasonably held. There is a natural reaction in the minds of such men, from extreme credulity to extreme scepticism; because they have never been taught to appreciate true reasoning, to believe upon adequate evidence. **Regardless of**—indifferent to.

Clogs—impedes; obstructs the working of. **Excite; incite** would be more appropriate now-a-days.

Section 13. This section seems to be the only one in this book, in which the importance of drawing right conclusions from facts—or correct induction—is dwelt upon. **Civil**—regarding our rights and duties as members of society. **Benefit them**—'use to which they are put by the understanding'; *make a benefit* is not idiomatic now. **Standing**—fixed. **Consequently:** Because men, as rational beings, are guided by their knowledge in matters of conduct.

Page 27. Assiduous: To use Pope's words, they are like—

The bookish blockhead, ignorantly read,
With loads of learned lumber in his head."—*Essay on Criticism*.

Nothing but history—a mere string of stories. They do not derive any principles or truths about human character and human progress from history. **Dream on**—go on spending their time uselessly. *Dream* here does not suggest the idea of meditation,

but is contrasted with reading to some real use. **Crudities**—food not digested; hence, 'vague and unsound notions.' In this word, the metaphor in *dream on* is continued,—for dreams, especially frightful dreams, are often produced by indigestion, which interferes with sound sleep.

Materials of knowledge—things with which knowledge may be built up. [Locke rightly distinguishes between knowledge and mere information. Men often ignorantly admire those whose memories are stored with a vast mass of facts or quotations. But these are generally useless even as materials, unless they are arranged, pigeon-holed so to speak, in the memory, and can be availed of when wanted. And it is only rarely, in a Macaulay or a Gladstone, that a wonderful memory is of this methodical kind.]

Contrary conduct: i. e. instead of drawing no conclusions from what they read they are over-eager to rush into such generalizations. **Raise axioms**—build up principles which they call self-evident (but which are often very doubtful.) **Between these**: Here the author points out the right mean between the two extreme courses. What people should do in reading history, is to verify or disprove the important hints suggested to their minds by this or that fact. **Wary induction**—cautious generalisations from facts. **Rhapsody**—a confused series (Gr. *rhapsō* to sew and *ode* a song; i. e., a string of poems, or a portion of an epic recited at one time—such reciters being called *rhapsodists*). The word is now generally used to mean 'a wild and rambling composition.' **Contrary**—contradictory. **Pudder** (obsol.)—confuse.

Page 28. Sec. 14. Bias means *lit* a weight on one side of a bowl (in the old Eng. game of bowling) that makes it move obliquely; hence, a particular bent or inclination of the mind (making it go wrong.) **Possessed with**: which sway their minds. When *possessed* is followed by *with* (and not *of*) the phrase has always a somewhat unfavourable meaning, and suggests the influence of evil spirits. **Bear no mixture**: compare what Bacon says of such mixture in his *Essay, of Truth*. **Rigid**: it cannot be swayed or modified by any desire for other advantages.

Conforming itself: Obeying truth, fitting itself to find out and establish truth. **At first hearing**—readily; without hesitation.

Open defiance: no one will be guilty of the manifest absurdity of declaring that &c. **Reason to do so**: i. e. *not* to know and think of things as they really are. **That is, in effect**—'Or what means practically the same thing.' Whatever is advantageous to one's own self, one's faith or party, is regarded as the cause of God or of the welfare of mankind. Thus men justify, Locke says, their disregard of truth, by phrases that sound well. **Which they purposely do**: The men who misuse their faculties &c. are those who do not let correct ideas enter their minds, and who in all those subjects which they care to study at all, deliberately content themselves with wrong ideas.

Sec 15. Very much of kin : The habit of carefully seeking for arguments to support one's own views, and disregarding the arguments that go against them—is closely related to the habit of not looking at things as they really are.

Page 29. Debases it—brings its value to a very low point ; sets truth at naught. To *debase* a coin is to 'lower its value by mixing more alloy with the true metal, or reducing its weight. **Espouse :** take up those opinions that conduce most to their power &c. **Comport**—are consistent ; accord. **Lighted upon**—accidentally hit upon. Some editions read *light* ; the use of *light* as partic. is met with in Shakespeare's *Pericles*, IV. 2.—“You are *light* (i.e. fallen) into my hands, where you are like to live”. **Stumbled :** accidentally fallen upon truth when his sole aim was to advance his worldly interests. [These remarks are specially directed against those who adopt the opinions of that sect which is in power. Such conversions were common enough in the 17th C. but they were always regarded with suspicion.]

Pro and con—for and against ; on both sides. **Distract**—bewilder ; confuse. **Gone farther :** really studied the subject deeply—instead of merely gathering all can be said on either side of a discussion. Only those who have gone deep into a subject, are not liable to have their minds confused by a variety of arguments. **Serve our vanity :** This kind of vanity—viz. the display of versatility—is censured by Bacon in his *Essay, Of Discourse* : “Some in their discourse desire rather commendation of wit, in being able to hold all arguments, than of judgment in discerning what is true ; as if were a praise to know what might be *said*, and not what should be *thought*”. **Names annexed :** using at the same time precise words to express such clear ideas. **Habitudes :** See Sec. 7, p. 18. **Floating**—vague. **Indetermined**—not clear or settled. **Serve a turn**—help our argument when necessary. **Respects**—connection. **Real knowledge consists :** See Sec 9, p. 21. **Plausible sophistry**—misleading arguments, which appear sound.

Retainer—servant. **Be fain :** be glad to be relieved from what he knows so hazily. **Implicit :** opposed to *explicit* or clear. The word means *lit.* 'within folds' ; hence, 'what is dark, or imperfectly known.'

Page 30. Section 16. Labour-sake : the modern form is *labour's sake*. **Against nature :** because labour is but a means to an end, not itself the end. This is stated here to show that all attempt to abridge labour is legitimate in itself. The time and energy saved by such means are available for other ends. **But this whether :** The sentence sounds incomplete ; but the meaning is—“Either through laziness or haste, this tendency to abridge labour often misleads the understanding, and makes it” &c. **When testimony of right :** when the matter is not one which ought to be decided by mere witnesses, however reliable. **In matters of fact,** the testimony of respectable witnesses carries

irresistible weight; but in matters of *opinion* or reasoning, the mere fact of such and such worthy men holding certain opinions, or regarding certain arguments as strong, proves nothing. *Of right* means 'properly.' **Scientifically instructed**—taught (and convinced) by strict scientific reasoning. **As it were**; as if, that single argument had the force of mathematical proof. **Trial of probabilities**: See Sec. 7, p. 17. **Determined by probable topics**: the mind decides upon some ordinary arguments showing a conclusion to be probably true. **Where demonstration**: Of course when a point admits of strict proof, one should seek such proof, and not be content with mere probable reasoning.

Multiplying variety—a great number of arguments turning upon mere words, which are frivolous or trifling. **Lost labour**: *Lost* in such phrases means *useless*. **Other way of assent**: viz. believing a thing to be true on the strength of many arguments, chiefly frivolous ones. **Hovers about it**: the mind tries aimlessly to reach truth. **Amused**: There are some minds that do not earnestly love truth, and even delight in doubt—using arguments on either side merely as a sport.

It is to this.....owing—'men fail to trace arguments (as they should do) to the true fundamental principles, because of this haste &c. that I have been speaking of.' **Jump to the conclusion**—decide in a rash hurry. (The phrase has become a very familiar one.)

Page 31. Opiniatry—Obstinacy or conceit in one's own opinions. Other editions give *opinionatry* and *opiniatry*—the latter being from the corresponding French word. A man unduly attached to his own opinions is now called *opinionated*, or *opinionative*; and from the last the abstract noun is formed by adding *ness* (but rarely used). **Farthest way about**—'the longest and most round about way'; i. e. it never leads to knowledge. **Connection of the proofs**: knowledge worthy of the name must be reasoned knowledge—not of mere facts or unproved opinions.

Sec. 17. Desultory—*lit* 'leaping from one thing to another'; hence,—rambling, not methodical. The word is used for desultory habits. **Court lady**: a lady of rank (who is admitted into the society of the sovereign).

Sec. 19. Universality—general knowledge of all (or many) subjects. **Taking a taste**—acquiring some insight into (not a smattering.) See next page. [Mill says in his *Inaugural Address*, referring to Archbishop Whateley's refutation of Pope's famous dictum, *A little knowledge is a dangerous thing*:—"An eminent man... has well discriminated between a general knowledge and a superficial knowledge. To have a general knowledge of a subject is to know only its leading truths, but to know these thoroughly, so as to have a true conception of the subject in its great features; leaving the minor details to those who require them for the purposes of their special pursuit. There is no incompatibility between knowing a wide range of subjects up to a certain point, and some

one subject with the completeness required by those who make it their principal occupation. It is this combination which gives an enlightened public.....The amount of knowledge is not to be lightly estimated, that qualifies us for judging to whom we may have recourse for more.] **Shreds**—rags; loose fragments (such as some learned scientific words, some quotations, of detached sayings &c.) **Frippery**—*lit.* cast off clothes; hence, worthless things. **Come amiss to**—be uncongenial or unsuitable to; embarrass. **Was readily furnished**: as if his head was supplied with whatever might be wanted &c. **This is an excellency**: But on the other hand, the possession of real knowledge in most departments of thought is a valuable accomplishment. *Excellence* is the form now always used in this sense (*viz.* 'true superiority'), *excellency* being reserved for special uses, as 'His Excellency the Viceroy.'

Page 32. Common-wealth—State, or society. **So to the bottom**—as deeply, or thoroughly. **Were ordered**—were conducted systematically. **Great deal farther**: unfortunately, it is the men who have little to do, that generally fail to find time for anything; whereas busy men often contrive to extend their knowledge and efforts to inquiries quite apart from their particular callings in life. [Against the prevailing ideas about want of time to acquire general knowledge, Mill (whose knowledge was as methodical and well-digested as it was encyclopædic) says, in his *Inaugural Address*: "This question, whether we should be taught the classics, or the sciences, seems to me I confess very like a dispute whether... a tailor should make coats or trousers. I can only reply, why not both? Is not any one a poor, maimed, lop-sided fragment of humanity who is deficient in either? Short as life is, and shorter as we make it by the time we waste on things which are neither business, nor meditation, nor pleasure, we are not so badly off that our scholars need be ignorant of the laws and properties of the world they live in, or our scientific men destitute of poetic feeling and artistic cultivation." I am amazed at the limited conception which many educational reformers have formed of a human being's power of acquisition.....I should prefer to see these reformers pointing their attacks against the shameful inefficiency of the schools, public and private, which pretend to teach these two languages, and do not. I should like to hear them denounce the wretched methods of teaching, and the criminal idleness and supineness, which waste the entire boyhood of the pupils.....Let us try what conscientious and intelligent teaching can do, before we presume to decide what cannot be done." He admits, however, that "reforms, worthy of the name, are always slow, and reform even of governments and churches is not so slow as that of schools; for there is the great preliminary difficulty of fashioning the instruments, of teaching the teachers."]

In hand: the subject we are dealing with—the advantages of wide and varied culture. **Suppleness**—flexibility; absence of

any stiffness of the mind. **Bents**: *bends* would be used how, *bent* being chiefly used in the figurative sense of 'inclination'. **Besides, this universal**: 'there is another evil that may be prevented by this general knowledge, if pursued impartially before the mind has come to love any one subject, by exclusive devotion, to it. This evil is very common amongst those who have been trained only in one department of knowledge.' **Seasoning** is the process by which timber is hardened or dried, so as to be fitted for use; hence, **seasoned**=brought up, educated. **Tincture**—colouring; taint. **Ploughing**: The reference is to the metaphysical theory of the Realists, who held that all that was real in nature depended on those general or abstract notions which described their essences. **History of nature**—Natural History, or the sciences describing natural phenomena * **Signify nothing**: is sure to be wholly neglected, or despised by him. **Reduce divinity**: trace theological doctrines to the rules he has observed in decomposing and recomposing substances. Thus Sir T. Browne says in his *Religio Medici* (Part I. Sec. 50.) that "some of our chymicks affirm, that, at the last fire all shall be crystallized and reverberated into glass, which is the utmost action of that element." **Salt**—salt. These three substances were highly prized by the alchemists, and formed the so-called Triad. So even in writing about morality—a subject they knew little about—they drew analogies from the properties of these substances.† The great German physician Hohenheim—better known as Paracelsus,—takes Salt, Sulphur and Mercury to represent the universal world-law of triplicity; all corporeal substances contain these principles, as for instance what *smokes* in the wood is mercury, what *burns* sulphur, what remains in ashes is salt; and in man, salt appears in the body, sulphur in the soul, and mercury in the spirit—man being partly like, through this

* In speaking of the *idola*, or false notions by which men are deceived, Bacon observes: "The understanding is, by reason of its nature, carried on to abstraction; and fancies those things to be constant, that are wavering." And of men fond of particular studies, he says: "Such men if they take to philosophy and universal contemplations, generally corrupt them with their former conceits; of which we have a signal example in Aristotle, who made his natural philosophy such an absolute slave to his logic, as rendered it contentious, and in a manner, useless."—*Novum Organum*.

† And as to chemists and their theories, Bacon says: "The tribe of chemists, from a few experiments of the furnace, have run up a fantastical philosophy of very narrow scope. . . . Such a philosophy appears probable, and in a manner certain, to the men who daily converse with these experiments, and thereby deprave their imagination; whilst to all others it seems incredible and vain."—*Novum Organum*, Secs. II & III. "In the same spirit the musical philosophers of Greece supposed the human soul to be nothing but harmony; and in modern times the ardent student of astrology, Cardan among others, have attempted to explain by their pretended science the facts of Scripture. In like manner, a wild enthusiast of our own day imagines himself able to explain all the mysteries of nature and revelation, by means of a little moveable triangle. Again, a printer turning preacher represented human life under the allegory of a complete sentence: childhood was a comma, youth a semi-colon, manhood a colon, and death a full-stop." (St. John's Edition of Locke's Philosophical Works).

triplicity of nature, to three other kinds of beings—the beasts, angels, and elemental spirits. (Erdmann's *History of Philosophy*, Vol. I. Sec. 241.) **Allegorise**: trace allegorical meanings in passages of the Bible &c. pointing to the *Philosopher's stone* (the imaginary substance capable of turning baser metals into gold, which the old alchemists sought for centuries) **Mysteries**—points of faith, or doctrines which cannot be understood by human reason (e. g. the doctrine of the Trinity—the three in one and one in three.) **More...excellency**—extraordinary proficiency. **Accommodate** fit in; fancy a close analogy and correspondence to exist between &c. Read **Moses' for Mose's**. **First week**: the seven days of creation, as described in the Book of Genesis, which was ascribed to the Jewish leader and prophet Moses. **Notes of music**—the gamut, or scale of seven notes in each octave (Beng. *gram*), denoted by the letters A, B,.....G [This idea was poetically expressed by Dryden in his *Song for St. Cecilia's Day*, beginning—

From harmony, from heavenly harmony,
The universal Frame began; . . .
From harmony to harmony
Through all the compass of the notes it ran;
The Diapason closing full in Man."]

Page 33. Possession—mastering influence (as of evil spirits.) **Rank**—the relative position and importance (of the different branches of knowledge.) [Thus Bacon speaking of natural philosophy as a pyramid, says "the basis is natural history (description of phenomena); the stage next the basis is physic (explanation of phenomena); the stage next the vertical point is metaphysic; as for the vertical point the summary law of nature, we know not whether man's inquiry can attain unto it."—*Advancement of Learning*, B. II. ch. vii. Locke's Division of the Sciences,—in the concluding chapter of his work—is into the following three wholly "distinct provinces of the intellectual world":—(1) *Ppysica*, or the nature of things as they are in themselves, their relations &c.; (2) *Practica*, that which man himself ought to do, for the attainment of any end; (3) the Doctrine of Signs, (of which the most useful is logic) the ways and means whereby the knowledge both (1) and (2) is attained and communicated.] **Just allowance**—proper degree of importance.

Read in the breeding for in them breeding. *Breeding of the young* would now convey a different meaning. **Already observed**: See Sec. 12, p. 26. ll. 5-10. **But I do not propose**: Locke tells us repeatedly that general knowledge is valuable, not as regards the mere information of various kinds supplied, but for the educational value of such varied culture.

Sec. 20. Great readers—those who devour any and every sort of books. **Materials**: See p. 27. **Thinking.....ours**: compare Bacon's well-known advice: "Read not to contradict or confute, nor to believe and take for granted; nor to find talk and

discourse, *but to weigh and consider*"—*Essay L** **Ruminating kind**: we resemble the class of animals that ruminate or chew the cud (that they have hastily swallowed before.) **Collections**—facts or ideas gathered from books. **Chew them**: probably borrowed from Bacon's *Essay*: "Some books are to be tasted, some to be swallowed, and *some few to be chewed and digested*." Locke's advice is one-sided in comparison to Bacon's; but the former is speaking of such reading as serves to develop the understanding, and therefore ignores those books which it may be worth while to taste or swallow. **Well pursued**—following each other in good order. **Particulars**—collections of facts, or detached ideas.

Page 34. Floating: See p. 27. **By hearsay**—second-hand (to be rejected by the sound scholar as hearsay evidence is rejected in courts of law. **Examen** (obs.)—examination. (In this line put the comma after *that*, instead of before it.) **Every reader's**: Many readers are not prepared to make the examination necessary to discover that—viz. the wrong foundation on which many books rest. **Only hunt for**: want simply to gather arguments and facts in support of the doctrines of the party they are devoted to. (See p. 29.) **Original**: commonly used thus for *origin* in older Eng. cf. "Their frail original"—*Paradise Lost II*. **So that those**: Thus men used to trace arguments in a book to their source, are able at one glance to discover on what the whole argument is founded. **Clue**: the means of finding their way—without losing themselves or getting confused—no matter how complicated and bewildering the mass of opinions may be. **Mizmaze**—labyrinth; mazy, winding path through intricacies. **Entered in**—taught. Cf. "enter them" &c.—page 19 (bottom). **Stand to examine**—stop in every case to examine &c. **Unravel**—disentangle; clear of its intricacies.

Page 35. Fair and softly: a common use, *fair* being an adv. =softly or gently. Cf.—

"*Friar*.—* * To the chapel let us presently.

Benedick.—*Soft and fair*, Friar."—

Much Ado about Nothing, V. 4.

Rub—obstacle (nearly obsol.) **Make out.....deduction**—to present in a complete process of reasoning, step after step. **Sensible**—clearly perceived. **Enlivens**—cheers.

* The following lines of Milton contain a somewhat exaggerated expression of the same view:—

— "Who reads
Incessantly, and to his reading brings not,
A spirit and judgment equal or superior....
Uncertain and unsettled still remains,
Deep versed in books and shallow in himself,
Crude or intoxicate, collecting toys
And trifles for choice matters."—*Paradise Regained*, Book IV.

Sec. 21. Intermediate—to be used as steps from the fundamental principles to the required conclusion (resembling the propositions in Euclid used to establish later ones.) **Saving the long progression**: sparing the mind of the laborious process of going back step by step to the first principles in every argument. **Positions**—opinions. **Depending on them**: which follow from these intermediate principles by a shorter process than from the first principles. **Landmarks**—guiding signs. **Quite beside**—very close to. **First axioms**: It should be observed that in Geometry, for example, the truth of the propositions is to be traced, not merely to the so called axioms, but to the *definitions* as well. **Resolve**—solve; clear up.

Page 36. Link: step of the reasoning which connects them with the original axioms &c. **Upon credit**—trusting to the statement of some person of authority. **In them lies**—is possible for them. **Captivate**—enslave; surrender. (The word would hardly be thought appropriate now.)

Sec. 22. Already: pp. 22-3. **Flatulency**—*lit.* windiness—a disorder in the stomach producing gases; hence, conceit or vain-glory. **Does this prejudice**—works the following injury.

Page 37. Ways or hints: Even in one's own special study, it is often of advantage to have guidance and information from other branches of study. Compare Prof. Blackie's observations on professional reading and "the mere professional man"—*Self-culture*, pp. 29-31.

Sec. 23. Trade or faction—a means of promoting one's selfish interests, or the interests of one's party. **Secular**—worldly. **Comprehension**—what embraces or includes. **Words of revelation**: in the scriptures. **Display it**: viz knowledge of God. **Characters**—signs; letters. **Abstruse parts**—deeper and more difficult inquiries included in Theology. **Treasures**: viz. the valuable works of great writers on the subject. **Freedom**: from bias or prejudice. **Impositions**—doctrines forced on the beliefs of men. **Wrong use of my understanding**: One has no right to force another to think and believe as he does.

Sec. 24. Here we have a signal instance of the want of method often observable in this book. The subject of sec. 22 is taken up again under the same heading, after a little digression. **Permitted.** Even where a man does not go so far as to throw complete discredit on other branches of knowledge. **Indulged in.** Such partiality may lead one to pursue confidently the facts or methods of his favourite study into other studies where such facts or methods are quite out of place. [Thus it is said, that at the present day, men of science, who have achieved grand results in their own department, and acquired authority, go out of their way to discuss confidently various questions of religion &c.] **Lines and diagrams**: Dr. Samuel Clarke, a contemporary of Locke, made use of a geometrical method of proof to establish the existence of God, and other

doctrines of natural theology. **Politic** : now used in a sense different from *political* (viz. artful)—an instance of the process called *desynonymization* by Trench.

Page 33. Retired speculations—philosophical inquiry or contemplation pursued in one's closet (apart from actual operations of nature ; what Bacon contemptuously speaks of as "spinning webs out of themselves, like spiders," and as "smelling of the lamp."

Run natural philosophy &c.—rashly introduce into physics the notions &c (thus bringing in confusion and mere subtleties in the place of true observation and generalization from facts.) [This tendency is illustrated in Boyle's inquiry into the origin of forms and qualities, and is described thus in Bacon's *Nov. Org.* aphorism 66 :—"We proceed next to the corrupt matter of contemplation in natural philosophy. When men contemplate nature in her freedom, they meet with different species, or appearances, of things, as animals, vegetables, minerals ; and hence readily imagine that there are in nature certain primary forms, which she endeavours to disclose ; whilst the other varieties proceed from some impediments or deviations of nature, in her work..... The former fancy led to the notion of primary, or elementary qualities, and the latter that of occult qualities, and specific virtues ; both which tend to the empty abridging of contemplations, in which the mind rests and is kept from more solid knowledge." And as regards the help received from the *generalities* of Aristotelian logic in natural science, he goes on to say, in Aphorism 82 :—"This is only a nominal assistance ; for logic does not discover the principles and capital axioms upon which arts are built ; but only such as seem agreeable thereto ; and when men are curious and earnest with it to procure proofs and discover principles, it refers them to faith, or puts them off with this trite and common answer, that every artist must be believed in his own art."] **Terms of the laboratory**—technical words in chemistry. See p. 32. **Chymistry** : the more usual spelling at one time—now hardly ever used. **Res ... administrari**—Things (or affairs) refuse to be badly administered ; i. e. a bad administration prepares the way for its own overthrow. **Res ... intelligi**—Things refuse to be ill understood ; i. e. the mind revolts from or rejects, what it cannot understand. **Bring things ... own** : try preposterously to fit things to the ideas or theories they have already formed. **Pre-conceived** : what are called *a priori*.

Fantastical—fanciful, or absurd. **Wild**—has nearly the same sense—unreasonable, or extravagant. **Ancients.....or moderns** : The reference is to the great controversy in Locke's time between the champions of the ancients represented by Sir W. Temple, and those of the moderns, which became subsequently narrowed in England into the celebrated dispute concerning the Letters of Phalaris, in which the great scholar Bentley overthrew his antago-

nists (of whom the chief was Boyle.)* The controversy was burlesqued by Swift in his *Battle of the Books*. **Raving**.....poetry—insane admiration for ancient poetry (as the only poetry worth the name.) **Horace**: the great Roman satirist and lyric poet of the Augustan age. The reference is to a long passage in the first Epistle of the Second Book (of his *Epistles*, not *Satires*, as Locke says, though indeed most of the former are mildly satirical.) He points out the difficulty of drawing a clear line between the ancient and modern poets, notes some of the characteristics of the former, and protests against the indiscriminating admiration of them then in fashion: "That they should be regarded faultless amazes me; because if a word or a verse here and there in such poems happens not to be ungraceful or inelegant, that serves most unjustly to recommend and sell the whole. I lose my patience, when works are censured, not as wanting in beauty or smoothness, but because they are new." **Not authorised**: which is not supported by the authority of ancient writers, who are looked upon as towering high over the moderns in knowledge [This belief, which has prevailed in almost every age and country, is not limited to the mental superiority of the ancients: they were regarded as superior in stature and strength also to their degenerate descendants. But from an examination of old armour, skulls, bones &c. still extant, it has been proved that in Europe, at least, there has been no degeneracy during the last thousand years. And similar, though much rarer, remains found in ancient geological strata have shewn that the Pre-historic man (some tens of thousands of years ago) was inferior in stature and brain-capacity to the modern European. See *Leung's Problems of the Future*, chs. V & VI.] **Like extravagancy**—equal absurdity (on the other side.) **Taken with**—enchanted, or deeply impressed by. **Modern** . . discoveries: The researches of the Royal Society, the recent discoveries of Newton, and those of Copernicus, Kepler, Gilbert, (in Magnetism), Harvey (of the circulation of the blood) Galileo and others, are referred to. **Lay by**—Contemptuously set aside.

Mould—a kind of dust-like vegetable growth (such as decaying substances, become covered with.) [Bacon says: "Truth is not

* This dispute about the comparative merits of the ancient and modern writers arose in France, where Fontenelle and Perrault claimed for the moderns a general superiority over the ancients. Sir William Temple published in 1692 a reply, which produced a great sensation in literary circles, both in England and on the continent, though the essay was full of errors and false reasoning. Among other bold assertions, Temple held that the human race is degenerating, and that in every subject the oldest books are the best,—the fables of *Æsop* being the best fables, and the *Letters of Phalaris* the best Letters ever written. This led to a general desire to read those Letters (in Greek) and Charles Boyle of Oxford brought out an Edition, —in the preface of which he made a complaint about the discourtesy of the King's Librarian, Richard Bentley. The latter revenged himself by proving that the Letters of Phalaris were a forgery. A reply came out from Oxford, under the nominal authorship of Boyle, which was regarded as conclusive, till Bentley, after two years' silence, published a most crushing rejoinder, in which he displayed his vast learning.—See Macaulay's Essay on Sir W. Temple or De Quincey's Essay on Bentley.

to be derived from any thing essentially favourable in the times, but from the light of nature and experience, which is eternal."1.

Page 39. Truth is always the same: Those who recognise the slow progress of the human intelligence from age to age, hold, on the other hand, that though truth in the abstract is certainly immutable,—men are seldom able to attain more than an imperfect view of any great truth; thus what is truth in one age, may be such simply because, in that stage of the development of man's intelligence, he could not have got beyond it; but afterwards, he may get such an enlarged view of the same truth, as to outgrow altogether the older conception of it—the latter then ceasing to be the truth. This is especially the case with men's conceptions of the universe, of society, of duty &c. **Delivery**—communication (to others.) **Left a great deal:** In his famous refutation of the fallacy about antiquity being older and wiser than modern times, Bacon says: "As we rightly expect a greater knowledge of things, and a riper judgment from a man of years than from a youth;... so might much greater matters be justly expected from the present age—if it but knew its own strength and would put forth and try that strength—than from former times; as this is the more advanced age of the world, enriched with infinite experiments and observations that have been accumulating."—*Novum Organum*, B. I. Sec. VI. **Squeamish**—scrupulous; easily disgusted (either with what is new, or what is old.) The word comes from A. S. *Swima*=a giddiness, swimming of the head; the *g* was inserted when the word was confounded with *qualmish*. Compare *s* in *island*, or *r* in Beng. *sharshi* (from Eng. *sash*) which was supposed to have something to do with *arshi*, mirror.

Heterodox—different from the prevailing or accepted belief.

Will not venture: some will not dare to seek truths which are not already accepted in their time and country. **Going right:**

the easy, comfortable way of thinking is regarded by such men as the right way, and they are quite content to go on thinking like the rest to the end of their days. **Vox populi:** the voice of the people is the voice of God. *However* has here the force of 'although'. *Wherever* is here equivalent to 'that anywhere'.

Nature truths: or that Nature ever communicated her truths through innumerable vulgar channels (the bellowing of cattle, as it were.)

Many-headed beast: an ordinary expression for the unthinking multitude. [In *Coriolanus* (II. 3) a citizen thus explains the sense in which Coriolanus has called the people *the many-headed multitude*: "We have been called so of many; not that our heads are some brown, some black,..... but that our wits are diversely coloured; and truly I think if all our wits were to issue out of one skull, they would fly east, west, north, south."]

Vulgar capacities—man of a low order of intelligence.

Page 40. Such nice palates (ironical)—men who are disgusted with whatever the people in general think. **Mark of the**

beast : appears to them degrading or vile. **Lessening**—a degradation. **Paradoxes**—startling opinions—seemingly contradictory or absurd. **Vent**—utter. **Common reception** :—as were ever favourably received by the people in general. **If there are conveniences**. On the other hand, it would be equally unreasonable to reject any conveniences, simply because people have not yet generally learnt to use them.

Besides that—Other than truth. **Something worse** : viz. mischievous folly, or imposture.

Dedicated to letters—devoted to literature ; who are always reading books. **Study to reading**. Compare Prof. Blackie's observations on this head. (*Self-culture* pp. 1-2 & 29.)

Page 41. Natural agents—things or forces that operate in nature—e. g. fire, air, light, heat &c. This first class of facts are purely natural phenomena. **Patients**—bodies on which forces are brought to bear. **Artificial manner**—in a way especially contrived by man (for certain purposes.)

Learning : as distinguished from *knowledge*. **Critical writing** : commentaries are the only class of critical works Locke is here thinking of ; for works treating of the merits of authors and the history of literature cannot be said to deal with the words or phrases used by writers. The latter kind of criticism was indeed not much in vogue in Locke's time. (See Prof. Blackie's remarks on *parasitical* books).

Comprehend—include. **Intuition** : i. e. immediate knowledge.

['If we reflect on our own ways of thinking, we shall find that sometimes the mind perceives the agreement or disagreement of two ideas immediately by themselves, without the intervention of any other : and this I think we may call *intuitive knowledge*. For in this the mind is at no pains of proving or examining, but perceives the truth as the eye doth light, only by being directed towards it.' Thus the mind perceives that white is not black, that a circle is not a triangle, that three are more than two—.....*without the intervention of any other idea*. This kind of knowledge is the clearest and most certain that human frailty is capable ofcertainty depends so wholly on this intuition, that in the next degree of knowledge which I call *demonstrative*, this intuition is necessary in all the connexions of the intermediate ideas."—*Of the Human Understanding*, B IV. ch. II.] **Alone knowledge** : knowledge of facts is excluded from knowledge proper. The distinction is somewhat arbitrary, and is certainly not recognised in the ordinary use of the term.

Wary conduct : to be guided with greater caution. **Innocent amusements** : the word *innocent* is rather contemptuously used ;—it being implied that men engaged in reading are thereby kept from giving way to unsocial passions (anger malice, cruelty &c.) But it is not meant that indiscriminate reading is quite free from

mischief to the reader himself ; for his mind may be narrowed, his tastes vitiated, his faith sapped or his superstition and credulity increased, by bad books.

Time to eat or sleep : This class of readers—familiarly called Book-worms, formed a larger proportion of the reading public in the first century or so after the revival of learning in Europe, than they have been in later times.*

Page 42. Transfused—poured into another ; at once communicated. **Precisely to do :** The men who read much do not trouble themselves even to understand exactly what is affirmed &c. **Bottom**—are founded. **Which consists :** as this knowledge consists or lies in &c. **Perceived :** i. e. intuitive. **So much.....so much** this would not be idiomatic at the present day,

Abound in citations—given to quoting largely from different authors. **Build**—rely ; establish. **Implicit :** See p. 29, last line.

Sort of trial—mode of testing the truth (of opinions.) **They themselves :** viz. writers of authority.

Page 43. Acknowledgments : of gratitude. **Set them :** presented the proof in so effective a manner as that in which they have been left to us. **Beholden**—indebted. **Beholding**—an obsolete form of the same word, — is the reading of some editions. **Which is not to run :** To read hurriedly through the discourses &c. . . is not to make a right use of them. **Knowing is seeing :** i. e. seeing with the mind's eye,—realising a truth in our own minds. **Let him use :** no matter how repeatedly he tells us that the truth of the statement is quite obvious, we must see the truth ourselves and not merely rely on what he says.

Archimedes—the great mathematician of Syracuse. **Knowing :** as an adj. the word now generally carries a somewhat bad sense,—‘over sharp or clever.’ Here, as in the above para, it means simply ‘possessed of knowledge.’

Sec. 25. Still presses—constantly urges (the mind.) **Catches at**—is eager to attain. **Rides post**—rushes with great speed. *Post* is an adv. = by changing horses at every post or station (so always to have a fresh horse.)

Page 44. Savannahs—prairies ; treeless grassy plains. **Buckle to it**—earnestly try to understand it. **Stick upon :** *stick to* is more idiomatic now. **Nicely**—over-subtle points, or distinctions. **Mysteries**—deep secrets ; hidden truths. **Obviousness or difficulty :** Many people fail to appreciate any truth which is not difficult to understand or find, and on the other hand over-estimate what is obscure—proceeding on the false principle that

* Burton—himself a notable example of this class—gives an interesting description of book-worms, in treating of study as a cause of Melancholia, a fashionable disease in the early part of the 17th C. See *Anatomy of Melancholy*.

"muddy waters are deep." Compare Bacon's words about truths "seen at half-lights" &c. in his first Essay.

Own conduct : to be guided by the 'bent' of the mind (and not by any rules.) **Running too fast** : This is called hasty or imperfect Induction. **Hardly to be supported** : is very difficult for such theories to resist the attacks of opponents.

Page 45. Counterfeit : false generalizations—which are like artificial diamonds or paste. **Already remarked** : p. 27. **Everything an observation** : i.e. "pick up and examine every pebble" (See preceding page.) **Observation** here=object of observation. [This is one way of taking the passage, and it fits best with what goes immediately before. But we may also take *observation* in this sentence to mean generalization,—to make *everything* &c. implying undue haste. This agrees better with the expressions "more falsehood" and with "collection of lumber" in the preceding sentence, the latter meaning 'masses of facts.'] **Extremes on both sides** : viz. too hasty, and too minute observation.

Sec. 26. Anticipation—taking hold of an opinion before proofs have been examined ; premature judgment. **Whether it be** : Take the sentence in this order : "This is visible.....possess them ; whether it be he... or else.....hold fast ; they (i. e. many men) are often as fond" supply the words—*of their first conceptions as* "of their first-born, and will... entertained." **Whether it** : it stands for *the reason*—viz. "that many men give &c." **Brings the first light** : introduces them to a new world of thought, or of facts. Men who have this "love," have been called "men of the first impression", in contrast to "men of the last impression" who are so weak as to be of the opinion they have last heard. See next section. **Or else** : Secondly the reason may be that people readily accept whatever looks like knowledge, and whether it is really so or not, cling to it. **Visible**—clearly true. **They are often** : such men seem to love the ideas they have first adopted as foolishly as parents often love the eldest child. **Recede from**—retire from ; give up. **Rather stiffness** : *firmness* being praiseworthy, the author prefers to use *stiffness* i. e. obstinacy, want of pliancy. **Submission to prejudice**. See p. 28, sec. 10. **Homage paid** : Too high a tribute or honour to the notions already occupying their minds.

Page 46. But what :—we show reverence for the first opinion we accidentally seize upon, be it true or false. **Preposterous**—absurd ; perverted. **This can never.....till** : Such perversion of the intellect can lead to true knowledge only if &c. **Whose business** : It being the function of our understanding to recognize and follow what is true in nature. **Opiniatry**—obstinacy. See note on the word sec. 16, p. 31. *That* refers to "what it finds.....without"—i. e. objective truth. **And make** : *And here* introduces an explanatory clause. **Comply**—agree with what the understanding has rashly concluded to be true. **Fancy**—foolishly

imagine to be true. **Habitude**—customary relations ; associations. **Correspondences**—agreement.

See 27. Resignation—surrendering one's judgment (and 'not will'—as the word usually means). **Contrary**: There are men who go to the other extreme—equally dangerous—of assenting thoughtlessly to the last &c. **Chameleon**—a kind of lizard that tries to conceal itself by assuming the colour of the surrounding objects ; hence the animal is a symbol of versatility ; and the word is used of one who is ready to change his views or behaviour according to circumstances. **No rule**—does not by any means decide whether they are right. **Draw cuts**:—decide by lottery. *Draw lots* is the current phrase now. **And by their testimony**:—whether an opinion be quite new or familiar, one should always be ready to hold it or give it up, according as it is supported or disproved by sound reasons. **Suffrage**—votes ; voice or permission. **Sec. 28. Put to a stress**—Strained ; subjected to a trial. **Quid valeant**: 'What your strength is equal to, what it is too weak to support.' The Roman poet Horace advises authors to choose subjects suited to their abilities.

Page 47. Balk—baffle. **Unaptness**—unfitness. **Ever after**: This is the reason why many promising children disappoint the hopes formed of them ; by unwisely straining their powers too early, they are incapacitated from close thought ever after, or at least from a dislike to study very hard to get over. The effect of insisting on long hours of study—especially at night—is often very disastrous. But parents, especially those who have themselves been but imperfectly educated, have very exaggerated ideas as to the amount of time that can profitably be devoted to study in early years. **Cracked**—over-strained. **Tenderness**—feeling of soreness ; liability to be easily hurt. **Sprain**—injury to a muscle or ligament. **Robust**—vigorous (now only used of a person or his constitution.) **So it fares**: The same thing happens to the mind. **Jaded**—overworked ; weakened. **Checks at**—resists. **Hardly**—with difficulty. The adverb is now only used to mean *scarcely*. **Insensible**—very slow (so as not to be felt.) **Constancy**—continuous devotion. **Begins with the calf**: a current proverb—meaning that even impossibilities are made possible by gradual efforts. **Prejudice**—injury. **Roundly**—smoothly ; straight on (a very common use of the word in Eliz. English.) **Abstruse**—deep and hard. **Yet this must not**. Yet one must not, on the other hand, become as unwilling to face difficulties, as to wander in a lazy helpless way about simple matters (instead of grappling or attacking them at once.)

Page 48. Recumbency—lying posture ; want of active inquiring spirit. **Danger to rest**: *Of resting* is the idiom now-a-days. **Tumbling**:—turning over and over ; examining from every point of view. **Retired**—hidden ; deep.

Overruling—completely swaying their minds. The reference is particularly to Aristotelian logic. **Believers** : In order to enter fully into the spirit of any teaching, there must be a conviction that the study is worth all the pains bestowed upon it. **That dignity** : the high rank of axioms ; continue to be regarded as unquestionable truths. **Think it sufficient** : who when they go wrong, justify their course by the authority of those rules,—a course that has been taken by so many before them.

Sec. 29. Another place : Book III. ch. 10 of his great Essay.* **Upon this reflection**—bearing this in mind. **Authorized**—sanctioned. **Language of the schools** : Terms used by the schoolmen. Locke is thinking particularly of *Innate ideas*—the existence of which he did his best to disprove. **Frame**—form in his mind. **Affirmed** : applied to the mere unmeaning sound of the word. **Articulated air**—breath uttered through the mouth ; *flatus vocis*.

Page 49. Entitles—things existing. **It will not perhaps** : If I mention *substantial forms* &c. as instances of terms which may well be suspected to be without any real meaning, many people will perhaps raise objections. **Substantial forms** : the internal reality, of which any class of things was the outward manifestation was called, in Metaphysics, the Form or Archetype of such things. [The theory is traced to Plato, who “assumed for every class of existence an idea” (*Schwegler, Hist. of Philosophy*) though the Platonic theory of Ideas underwent various modifications. Locke was one of the earliest modern philosophers who rejected what still remained of that theory in the current language of philosophy. He speaks of the various classes of substances as *nothing but the ranking of them under distinct names, according to the complex ideas they embody, and not according to precise, distinct, real essences in them*. He thus ridicules the old theory in which the *accidents* (used of the sensible qualities of things) were supposed to inhere in some real substance or substratum : “Had the poor Indian philosopher (who imagined, that the earth also wanted something to bear it up) but thought of this word *substance*, he needed not to have been at the trouble to find an elephant to support it, and a tortoise to support his elephant ; the word *substance* would have done it effectually. * * Whatever a learned man may do here, an intelligent American would scarcely take it for a satisfactory account, if he should be told that a *pillar* is a thing supported by a basis, and a *basis* something that supported a pillar. * * * Were the Latin words *inherentia* and *substantia* put into the plain English

* In this chapter Locke considers the following abuses of words : (1) Use of words without any, or without clear ideas, occasioned by learning names before the ideas they belong to ; (2) “Unsteady application of words” ; (3) affected obscurity by wrong application—often called *subtlety* in logic and disputation ; (4) taking words for things ; (5) setting them for what they cannot signify ; (6) a supposition that words have a certain and evident signification ; (7) use of figures of speech—carrying analogy to a misleading excess.

ones and called *sticking on* and *underpropping*, they would better . . . show of what use they are in deciding questions in philosophy."—*H. Unders.*, Bk. II. Ch. 13.]

Intentional species: the supposed images of objects and the means of making those objects perceived. *Species* has the literal meaning of *form* or *shape* (such shapes being supposed, in the old theory of perception, to enter the mind and cause perception of the objects they emanated from,—being themselves neither material nor purely spiritual essences.) [This *species* was sometimes called a *tertium quid*, or 'third something'; and the theory of perception postulating it is called *mediate* or representative. Most modern English philosophers—of whom Locke was one of the foremost—reject the theory.] **Insignificant** here=unmeaning; i. e., not having any clear ideas to be represented. **Etch out**—eke out; fill in what may be wanting to. **Conceptions from things**: and not from their imagination. **The supposing**: assuming that the words signify some real things in nature. **Answering**: *answering to* is the phrase used now. **Know not when**: i. e. it should never be considered at all. Whatever strikes us as conveying no clear ideas, we should never trouble our heads about. **Where men.....explain them**: Even the profoundest thinker, can make himself intelligible, if he deals with what he has himself clearly grasped, however remote his subject may be from ordinary notions. [Locke had no respect for writers who affected to be deep when they were really in the dark themselves—when their own thoughts were muddy or hazy.] **To what purpose**: It must be useless to seek to understand the thoughts of a writer who has either no thoughts, or no clear thoughts. **Let us beat**: no matter how long we try hard to understand the meaning of the term. **Manners of them**—the ways in which nature works. **To obtrude terms..... understandings**—It is only a trick used by men vain of their learning, for concealing a defect &c.—when we find them thrusting in words conveying no distinct thoughts, as if such words had some deep meaning. **Hypothesis**—general principle assumed as the basis of reasoning. See sec. 6, p. 12. **Not made to conceal**: Goldsmith seems to have borrowed from this the paradox that Language was given to man to conceal his thoughts. See no. III. of the *Bee*. The saying is commonly, but erroneously, attributed to the French wit, Talleyrand.

Page 50. Sec. 30. Wandering—allowing to mind to entertain irrelevant thoughts; want of fixed attention on any point. **Flux²-flow**. **Former part**: sec. 9. **That so**: by directing the succession of our thoughts. **Come in view**: *into view* is more usual now. **Pertinent**—relevant. **We are upon**—which we are trying to make. **Foreign**—not pertaining to the inquiry. **Great differences**: It is because some men allow irrelevant ideas to come in, that they cannot advance so far in their inquiries, nor make such valuable discoveries, as others who are more careful, though not naturally superior in intelligence. **Straggling**—

roving about. **Presently** : There is a shade of difference between the meaning here—i. e. 'at once',—and the ordinary meaning now—'a little while after.' **In the train**—the successive ideas. **Reconcile and inure** : (nom. "to bring back &c.")—make the effort of attention easy and a matter of habit with them.

Page 51. Rougher methods : the old Busbyean system—of freely using the rod to stimulate the diligence of boys—was then in full force. Locke was among the first to protest against the belief that neither discipline nor instruction was possible in a school without the use of such methods. See Introduction. **Would promote**—are intended to improve.

Sec. 31. Distinction : As explained below, Locke makes *distinction* natural, and *division* artificial (as in *Division by Dichotomy*.) **Puzzle and confound** : As Bacon observes, *He that doth not divide will never enter well into business, and he that divideth too much, will never come out of it clearly.* (Essay Of Dispatch.) **Argues**—proves. **Run us** : To divide too much would lead us to individuals (instead of *classes*) if we go far enough. **Differences** : *Differentiate* is the verb now used. **Under the consideration** i. e. when regarded as agreeing in some points. **Entity**—what is in existence. **As general as it is**—though it is so very general or widely applicable. **Branch** : more usually *transitive*. **Nothing more opposite** : The art of drawing minute shades of distinction and inventing words to indicate such shades, is very different from contemplating things as they are ; for these invented words are used at haphazard, are wanting in any distinct ideas, and serve simply to encourage idle disputes &c. **Verbal distinction &c.** : commonly called "a distinction without a difference."

Page 52. Will bear—will admit of. **Danger of this** : *from this* would be more idiomatic now. **Fence against** : guard against the perplexities arising from ambiguous terms, in which fallacies so often lurk. **Multiplied** : artificial use of a great many distinctive terms by Scholinen. **More than probable**—almost certain. Compare p. 49. **Crumbled** : divided into minute over-subtle distinctions. **Boundaries** : It is difficult to point out the exact limits within which we should confine ourselves, in order to avoid the extremes on both sides—viz. using *too few* or *too many* divisions. **Criticism**—the work of commentators, or annotators. **Fend**—ward off the attacks of others. *Fend off* is the usual phrase now. **Learning distinct &c.** See p. 41. **Helps nothing** : This is too strong an assertion, hardly tenable.

Page 53. Opponent : 'assailant' ; for this narrow meaning of the word, see p. 37. **Involve**—entrap (by making him admit something.) **Doubtfulness**—vagueness. **This is expected** : viz. that such an attempt to entrap him in his unguarded admissions will be made. **Nor can he indeed** : And where one triumphs in a debate not by truth &c. but skilful fencing with words, one cannot be too careful in drawing subtle distinctions.

(Locke repeatedly shows his contempt for such disputations.) **Captiously**—so as to ensnare or perplex (L. *captio*=deceit, from *capiō*=seize.) *Captious* has a much lighter meaning now—'disposed to find fault.' **Scholarship**—show of learning (not knowledge.) **All acuteness &c.**—have regarded this art of making subtle distinctions as the only proof of intelligence.

Rule for this : i. e. for avoiding such extravagance. **Will be able both** : Here *both* connects "able to discern" &c. and "able to apply" &c. (below.) **Penury of words**—poverty of language. **Distinguishing terms** : As Locke himself does in treating of *simple ideas mixed modes, secondary qualities* &c.—where *simple, mixed* &c. are 'distinguishing terms.' He speaks of the *imperfection of words* in his chapter with that heading in Bk. III. of the *Human Und.* **That answer**—i. e. answer to, or correspond with. **Are pertinent** : these distinguishing terms are properly brought in. [Like many other parts of this book, this section is full of repetitions.] **Measure** : means of deciding whether the distinctions are needed or not.

Page 54. Acuteness : the mere fact that a distinction shows sharpness of intellect, or that it is found in an eminent writer, is no proof of its propriety. **Will find only** : which (measure) he will find &c.

Aptness : readiness to confound together what only seem to have resemblance. **Other side** : a fault of the contrary kind to that of drawing too many distinctions.

Sec. 32. Another near of kin : another fault or defect of the mind closely connected with the above. **Run...similes**—eagerly seek analogies, or fanciful resemblances. Locke himself was subject to this weakness. Hallan notices his "fondness for analogical parallels, which much more frequently obscure a philosophical theorem than shed any light upon it." See Introduction. **Fail in some part** : the analogy being imperfect, is sure to break down in some points : "no simile ever goes on all fours" as has been well said. **Have the way** : are able readily to make other people share their thoughts. **Easy rate** : without the expenditure of deep thought, or close attention. **Go for** : pass for, are regarded as, the only clear thinkers. **Correspondence being concluded**—when the points of analogy are fully brought out. **Elucidate**—throw light on ; clear up.

Page 55. Decry—condemn. **This one rule** : see next sentence—to observe whether &c. The rule is, that such similes &c. are permissible when used as ornaments, or as conveniently illustrating some aspect only of the subject,—not when used as arguments to establish some new truths. **Representations**—images, or figurative language. They are called *borrowed* because not properly belonging to the subject, but drawn from other matters (as when political affairs are spoken of in the language of medical science). **By way of accommodation**—simply for the sake of convenience.

(not being put forward as exactly applicable) **Bearing some proportion**—not altogether inadequate, or inapplicable. **Allusive**—serving to illustrate (by reference to ideas of another kind); suggestive. **Set it off**—adorn or illustrate it. **Are...penetrated**: *have penetrated* would be mere idiomatic at the present day.

Sec. 33. Compare sec. 10, p. 23. **Degrees of it**: i. e. more or less guarded or qualified assent. In his chapter on *Degrees of Assent* (B. IV., Ch. XVI., *Human Und.*), Locke begins with the maxim that "our assent ought to be regulated by the grounds of probability"—such probability being either of matters of fact or speculation. The *Degrees* particularly mentioned are (i) Confidence or confident belief, (ii) Assurance approaching to knowledge, (iii) the highest certainty. **Admit of certainty** (this would now mean 'may be regarded as certain')—believe a thing to be unquestionably true. **Want not**: hardly ever used now in this sense ('are not wanting.')

Page 56. **Novice**—Beginner. **Discerning sight**—power of clear observation. **Even...persuasion**: See p. 29, where the author censures the practice of collecting arguments *pro* and *con* for purposes of empty disputation.

Usurp it: wrongfully dethrone our judgment. **Studies but**: fancy is bent solely upon flattering our vanity, and thus deceiving the understanding. **Court dresser**—fashionable dress-maker (who pretends to make even the old and ugly look beautiful by means of new appropriate dresses.) **Subservient**—slavishly devoted. **Mind to believe**: See the observations in secs. 10, 11 and 34. It seems too much, however, to expect that people should systematically abstain from all wish to believe anything, before engaging in an inquiry. See Introduction for a criticism of this view. **Not far from believing**: It is well known that people work themselves into a belief, and harden themselves in it, by merely trying repeatedly to convince others. Even a false story, at first told to others for fun or out of vanity, comes, after several repetitions, to be believed in by the story-teller himself. **No great odds**—not much difference; pretty much the same. **Shall be right**—is sure to be regarded as true.

Sec. 34. A section with the same heading as sec. 11 (q. v.) **Attestation**—convincing proof (*lit.* what is solemnly sworn to.)

Page 57. **Which being perhaps**: though "they that do thus" are few. (It is not allowable at the present day to begin a sentence with a *pendent clause* of this kind.) **Which** was often used for rational creatures. **Put them upon**: set them a-thinking. **Receptacle**: Cf. "Warehouse of other men's lumber." **Evidenced in themselves**—the satisfactory proofs of which they have themselves examined. **Capable to be**: of *being* would now be used. **We fail them**: We fall into error not so much because our faculties are imperfect, but

because we do not use them properly. **Born to orthodoxy:** When men adopt a different method (i. e. do not confine their assent to what has been proved to them) they are all destined to follow the prevailing opinion. *Orthodoxy* means properly 'true opinion'; but Locke here recognises the view which is expressed in Warburton's well-known saying, "Orthodoxy is my doxy, heterodoxy is your doxy." **Imbibe**—*lit.* drink in; adopt without any thought.

Page 58. Local truths—what are held to be true in any particular place. **What one &c.**—Did even one per cent. of fanatics ever examine the doctrines so obstinately held? **Lukewarmness**—want of zeal. **Apostasy**—falling into error. (*To suppose* and *to go about* are in apposition with *It*, which begins the sentence. *Tendency is gov. by of.*) **Fierce for positions**—violent in holding opinions. **Concernment**—importance; moment (*viz.* matters of religion.) **Short and easy**: used contemptuously. **In vogue**—prevailing. **Accounted**: regarded as an absurd singularity, or what is worse, a love of error, a heresy. **Warier sceptics**—makes those who are more cautious doubt everything. The reaction against extreme credulity generally takes the shape of scepticism as Locke points out more than once (see sec. 12, p. 28—"turn perfect sceptics" &c.) **Break from it**: those who free themselves from the custom (of accepting the prevailing opinions without question) are liable to be persecuted as heretics. **Possess together**: it is only in a small portion of the earth's surface, that the prevailing opinion there can be said to be the true one. **Last alone**: i. e. orthodoxy (which prevails everywhere—for whichever opinion happens to be current is called orthodoxy.) *Good luck* is ironical. **Infallible**: as it calls itself. There is perhaps a special reference to the Roman Catholics, who attribute infallibility to the Pope; but all believers in established creeds claim to be absolutely free from error. **Take place**—obtain; prevail. **Prescribe**—lay down the law (as to what shall be right). **Several**: repeatedly used in this sense—"various". **Declare**: i. e. let us judge from the various opinions prevailing in different countries—many of which are absurdly false. **No fence**—no way of guarding against. [This view is very powerfully advocated in Milton's *Areopagitica* and Mill's *Essay on Liberty*.]

Page 59. Clapped on—fastened, or imposed on them.

Sec. 35. Nearer to it—more likely to reach the truth. **Ungrounded**—not based on evidence, or sound arguments. **Danger to go?** i. e. 'of going.' **Under the conduct**: i. e. 'guidance' (as in the title of this work.) **A hundred to one**: a hundred chances (in favour of their being misled) to one chance (against &c.); i. e. 'extremely likely.'

Embrace for truth—accept as true. **Recover**—restore to reason; cure him of error. (*His case is truly desperate.*)

Does yet at least: Commits this one error,—viz. of taking

one side and joining one party to which he adheres till forced to abandon them. [His freedom or impartiality in examining &c. consists in his being ready to give up what he finds untenable; but as he does take a particular side, he runs the danger of being biassed. This is Locke's opinion; but he seems to go too far in demanding that a man should not take up, even provisionally, any definite opinions before full examination.] **Physic**—the medical science (now limited to *purgatives*, but often used formerly in a still wider sense,—‘knowledge of external nature.’)

Page 60. Dogmatists—men with certain theories, which they lay down authoritatively. (Homœopaths, with their principle that like cures like—*similia similibus curantur*—may be called Dogmatists in this sense.) Here the term has a special reference to the school of physicians that pretended to follow the principles of Hippocrates the father of Greek medicine, and what could be deduced by reasoning from those principles. **Methodists**: (now used only of a sect of Christians) the name given to a comparatively new school of physicians who professed to follow a special method of treatment. **Chymists**: the physicians who guided themselves rather by the known properties of drugs, than by theories concerning the body; they made elaborate compounds formed of various substances—a prescription sometimes naming fifty ingredients. **Hippocrates**: of Cos, who flourished in the 5th century B. C. **Any party**: viz. the Dogmatists. **Wire drawn**—spun out; deduced ingeniously various conclusions from. [It was by this method of freely interpreting and elaborating the text of old works that knowledge of every kind used to be advanced in former times—especially in India; and thus the necessity of reform and change was reconciled with an almost superstitious veneration for standard works.] **To their own sense**—to fit in with what they thought the correct meaning. **Tincture whereof**: and when my views are coloured in that way. **Unprepossessed**—not prejudiced in favour of a particular opinion. **Doctors**: here we see the word in its transition or passage from the older meaning (‘teacher’) to its most familiar sense at the present day (‘physician.’) **Chime that way**—agree, or fall in, with the views of that sect. **Strained**—unnatural; forced. **Uncouth**—strange; or, clumsy. **None**: i. e. no signification (because words are arbitrary symbols. **Visibly so**—obviously true. **Put.....ignorance**: assume the attitude of one who knows nothing of the subject.

Sec. 36. State the question: This is a matter of considerable importance; for a great deal of empty dispute might be avoided, if, at the outset, the real point at issue be correctly stated.

Page 61. Sec. 37. Abstract: (past part.) quite apart from; without any reference to. **His apprehension**: the method most suited to what he understands of the nature of the thing. **Resolution**—solution; definite conclusion. **He has time for**: This point has already been touched upon on pp. 17–20; as well as

elsewhere. **Provision for life** : Cf.—“constant drudgery to their backs and their bellies” (p. 18.) **No excuse** : Cf. “This excuses not those of a freer fortune and education” &c. (p. 20.) **Oscitancy** — (*lit.* yawning) drowsiness, or sluggishness (of the mind.) **Expected of him** : See p. 8, from the top.

Sec. 38. Presumption—over-confidence, or high opinion of our own intelligence, knowledge &c. Compare the remarks on pp. 6 & 13-5 **Distempers**—diseases. **Epidemic**—widely prevalent. **Genius** : used in a wide sense—‘bent of the mind.’ **Idiosyncrasy**—peculiar way of thinking or feeling. **Fortunatus’s purse** : which was inexhaustible. The reference is to a well known story—the hero of which was favoured by Fortune, who gave him the purse in question. **Native riches** the mental wealth with which they are endowed by nature. **Were best** : it would be best for such men &c. *Had best* is preferable now. **Stress**—contest ; struggle. **Skilful** (here)—those who know.

Superfices—surface ; external qualities. *

Page 62. Stones and timber : an instance of Locke’s fondness for analogies. **Pile**—building. **Intellectual world**—all that can be known by the human faculties. **Without us** : *i. e.* in the nature of the things themselves. **Piecemeal**—in separate fragments. **Set it up**—build up the fabric of knowledge (within our minds.)

Sec. 39. Despond—despair (of acquiring true knowledge.) **Viresque** : ‘And acquires strength by her very motion’ (said of Rumour in Virgil’s *Æneid*, B. IV., who is spoken of as flourishing by activity.)

Dum putant : ‘When they think they are about to conquer, they do conquer.’ **Of kin to**—closely connected with. **In gross**—as a whole.

Page 63. Spectres—terrific monsters. **Raises** : To raise spectres or spirits is to summon them by incantations (*mantras*) or the Black Art. **In a huddle** (obsolete phrase)—huddled, or jumbled together. **Faintly**—in a weak or spiritless way. **Remove** : now usually transitive. **Hideous giants** : Things appear much larger than they really are when seen through a mist ; the reason being, that we estimate distance by the comparative distinctness of the objects, and estimate the real size according to the supposed distance and apparent magnitude ; and in a fog the indistinctness leads us to exaggerate first the distance and then the size of objects, though we are not aware of the process. **Reduce . . . parts** : A difficulty broken in two is already more than half solved. [But those who are frightened by “a remote and confused view” of a subject, are not likely to enter into it even so far as to break it up into parts, or to imagine that they are capable of doing so.] *

Amused himself . . . raising—indulged foolishly in apprehensions as to the difficulties of the subject which were purely ima-

ginary. **Bugbears**—empty terrors. **Excite our vigour**—lead us actively to exert our powers. **Enervate &c.**—weaken our power or inclination to work hard. **Be indeed the next** : This advice is indeed sound ; but in practice, a man wants the guidance of another who is well-versed in the subject, as to what successive steps he should take to master the subject easily.

Page 64. It will hold : the understanding will keep firm possession of what it acquires thus gradually.

Disentangle—unravel ; free the parts from being confusedly mixed up together. **Ado**—trouble or difficulty. **In effect**—virtually ; after all.

Sec. 40. Analogy—agreement as to certain points in things belonging to different classes of existence. Here the word seems to mean argument from analogy, or the recognition of it.

Page 65. Keep ourselves : Locke seems to adopt too rigorous a method of arguing from analogy. In fact, when the argument does not go beyond the points of resemblance, it is hardly analogical in the full sense of the term—viz. presuming agreement in some point from known agreement in certain other points. **Oil of vitriol**—sulphuric acid. **Spirit of nitre**—nitric acid. **Spirit of Vinegar**—acetic acid. **Trial . . . justified** : It should be borne in mind, that Locke is not speaking of ordinary experiments—as those in a laboratory,—but of trying the efficacy of drugs on the human constitution—a trial only justified when the effect may be anticipated with confidence on good grounds. He would, we may presume, have been ready to admit that in an experiment for purely scientific purposes, one may be justified in proceeding much further *

Sec. 41. Association of ideas—such connection between two or more ideas, that one tends to suggest or recall the others to the mind. [This important principle or Law of Association has given rise in England to a distinct school of psychology, represented by many eminent thinkers, such as Hartley, J. S. Mill, and Professor Bain. Professor Bain who builds up his whole theory of

* Locke has been charged, with some truth, of taking argument by analogy in a more strict sense than usual, of identifying it, in fact, with argument from Induction. But besides the remarks made above, it may be observed that Locke's criterion of the soundness of analogical reasoning agrees pretty closely with that often laid down—viz. that the resemblance between the cases supposed to be analogous should not be a *superficial* or *accidental* one, but *essential* for the purpose intended. (Sidgwick's *Fallacies*, International Science Series, p. 253.)

J. S. Mill observes that *analogy* is used loosely and in a great variety of senses, and specifies the two following uses : (1) Conformably to its primitive acceptation—that given to it by mathematicians,—Analogy is defined as *Resemblance of Relations* ; as when a country which has sent out colonies is termed the *mother country* and the inference is drawn that obedience or affection is due from the colonies to the mother country. (2) Analogical reasoning in another (and the most correct) sense of the word, may be represented by the formula—"Two things resemble each other in one or more respects ; a certain proposition is true of the one, therefore it is true of the other". (Sys. of Logic, B. III. ch. XX.)

the Intellect by elaborating this principle, analyses it into various elements such as the Law of Contiguity, the Law of Similarity, Compound Association, Constructive Association &c. Locke treats of it in the concluding chapter of B. II. of his *Essay*, chiefly from a practical point of view, warning the reader against the danger of forming wrong connection of ideas, or intellectual habits—such as is illustrated in different religious sects.†]

Historically : Locke means that his treatment is wholly *descriptive* of the facts—the evils produced by wrong associations of ideas. But at the present day, the use of *historically* here would imply that Locke traced how the subject had been treated by previous authors. [Thus in a historical treatment of the subject it would be printed out that “previous to the time of Locke, the doctrine of Association though to a certain extent understood by philosophers, made but little figure in their systems ;—that Hobbes alludes to it in his usual brief and dogmatic way” ‡—that it was thus defined by an anonymous writer of Locke’s time : *By association, I mean that power or faculty by which the joint appearance of two or more ideas frequently in the mind, is for the most part changed into a lasting, and sometimes into an inseparable union.*] **That the rather**—all the more so. **Naturally so :** When people find things appearing always in a certain connection, it difficult to cure them of the belief that such things are truly and naturally connected.

Unheeded miscarriage—an error people take no pains to avoid. **Sandy &c :** See p. 12.

Page 66. Without a vigour : unless indeed their minds are strong enough to shake off the authority of habit. **Empire :** because the sway of habit is universal. **The practice of**—to practise. **To suppress :** As religious teachers or priests generally contrive to make their followers forget that every man owes it to himself (as a rational being) to look into the principles of his belief—as it is the first steady step &c. [Reli-

† “That which thus captivates their reasons, and leads men of sincerity blindfold from common sense, will, when examined, be found to be what we are speaking of : some independent ideas, of no alliance to one another, are by education, custom, and the constant din of their party, so coupled in their minds, that they always appear there together ; and they can no more separate them in their thoughts than if they were but one indeed. This gives sense to jargon, demonstration to absurdities, and consistency to nonsense—and hinders men from seeing and examining.” —*Human Understanding*, Bk. II. ch. XXIII.

‡ J. A. St. John’s Edition of Locke’s works. Byron has the following striking lines on the process of suggestion by means of the association of ideas :—

“And slight withal may be the things which bring
Back on the heart the weight which it would fling
Aside for ever ; it may be a sound—
A tone of music—summer’s eve, or spring,
A flower—the wind—the ocean—which shall wound,
Striking the electric chain wherewith we are darkly bound.”—
Childe Harold, Canto IV.

gious teachers often set up implicit faith as the greatest of virtues—without which all others are of no avail. To doubt is to fall into the hands of Satan.*] **Conscious to themselves:** Compare the remarks in the section on prejudice, pp. 22-3. Locke seems to be of the opinion of the ancient philosopher who could not imagine how two priests could meet together without laughing. **Own and propagate**—believe, and teach others. **Freely expose:** This description of what a lover of truth will do, is strikingly exemplified in the case of the scientific inquirers of modern times, who give the widest publicity to all the results of their research, to be confirmed or upset by other workers in their line; whereas astrologers, magicians and the devotees to the so called "occult sciences" love to shroud their proceedings in mystery, often pretending that it dangerous to communicate their knowledge or art to any but the initiated.

Principling—imparting the fundamental principles to. **Scholars**—pupils. (The word has come to acquire a limited meaning in this country, through the introduction of a great number of scholarships or stipends for students.) **What colours:** I do not mean to inquire here in what ways this method of instruction is usually justified especially in the case of those who are obliged to labour hard for their livelihood (and have no time, it is said, to learn the reasons for what they are taught to believe.) **Ingenuous**—(L. *ingenuous*=free-born) free; not doomed to toil for their daily bread. This meaning is obsolete. **Letters**—literary culture. **United in their heads:**—that in the minds of children, those ideas may not come to be firmly associated together, which have no bond of union in their own nature: e. g. the idea of a particular form with that of the deity. **Inculcated to**—impressed upon; (*lit*, 'pressed down with the heel' from L. *calx*=heel.) **Correspondence**—agreement amongst themselves.

Page 67. Riveted—fixed. **Another place.....change &c.** In the chapter on perception (B. II. of the *Essay*), Locke explains how the ideas "received by sensation are often altered* by the judgment, without our taking notice of it." Thus "when we set before our eyes a round globe of any uniform colour,—gold, alabaster, or jet,—it is certain that the idea thereby implanted on our mind is of a flat circle variously shadowed, with several degrees of light and brightness coming to our eyes. But we having by use been accustomed to perceive what kind of appearance convex

* In Schopenhauer's *Religion, a Dialogue*, Philothes says: "If in early childhood, certain fundamental views and doctrines are paraded with an air of the greatest earnestness; if, at the same time the possibility of doubt about them be completely passed over, or touched upon only to indicate that doubt is the first step to eternal perdition; the resulting impression will be so deep that, as a rule, doubt about them will be almost as impossible as doubt about one's own existence. Hardly one in ten thousand will have the strength of mind to ask himself—is that true. And yet the conviction is governed merely by the country native to each, and the reasons must be climatic, and thrive like plants, some only here, some only there."

bodies are wont to make in us.....the judgment presently, by an habitual custom, *alters the appearances into their causes*; so that from that which is truly variety of shadow or colour, collecting the figure, it (the judgment) makes it pass for a mark of figure, and frames to itself the perception of a convex figure and an uniform colour,—when the idea we receive from thence is only a plane variously coloured, as is evident in painting.....this in many cases, by a settled habit, is performed so constantly and so quick, that we take that for the perception of our sensation which is an idea formed by our judgment. **Not skilled in painting**:—i. e. who has never seen a piece of painting (*skilled*=possessed of any knowledge.) The words would now mean ‘one who is not a skilful painter himself’—which is evidently inapplicable here. **See protuberances**: If such a man be told that he is not really seeing any swelling—anything rising above a surface.—i. e. any solid object. **By the touch**: It is only when the painting is brought near to him, so that he can feel it with his fingers, that he understands there are no solid objects in it. **Legerdemain** (from a French word=light or sleight of hand)—trickery; deception (as of a magician or conjurer.) **Substitute other**: This is the great source of *Petitio Principii*—especially the employment of what Bentham calls “question-begging names.” These are not, as Locke admits, always sophistical, that is intended to deceive. Thus when a proposed change is called an *innovation*, the unfavourable meaning associated with the word imperceptibly affects one’s opinion of the propriety of the change. Locke points out in his *Essay*, how the words *Nature* and *Essence* are used as instruments of fallacy by many eminent philosophers. **False consequences**—wrong inferences. [In ch. xvii, B. IV. of the *Essay*, Locke traces errors in reasoning to the following causes: (1) Want of ideas (which makes us reason about words—empty sounds); (2) Obscure and imperfect ideas—which involve us in difficulties and contradictions; (3) Want of intermediate ideas—which could serve to show the certain or probable agreement or disagreement of any two other ideas; (4) Wrong principles or foundations of reasoning; (5) Doubtful terms.]

Sec. 42. Fallacies: The word is used in various senses, the four following being the most common ones:—(1) “A piece of false reasoning in the narrower sense, either an invalid *immediate inference*, or an invalid *syllogism*; (2) A piece of false reasoning in the wider sense, whereby from true facts, a false conclusion is inferred; (3) A false belief, whether due to correct reasoning from untrue premises, (reasons or sources), or to incorrect reasoning from true ones; (4) any mental confusion whatever.”—Sidgwick’s *Fallacies* p. 172. **Denied one of another**: i. e. as they are embodied in judgments (or propositions), either affirmative or negative. It should be borne in mind that this perception of the agreement or disagreement of ideas constitutes knowledge, according to Locke’s definition. **Overbalance**—preponderance; superior weight.

Page 68. Gives it the turn of—inclines the mind towards. **Reasonable &c.** It is rational and fitting that one should maintain a particular side of a question ; but he should not be prepossessed in favour of it before examination.

Change the ideas : state the question differently. (This is often done unconsciously, not with any intention of imposing on the reader, as L admits in the next para.) **Remoter disagreement**—more thorough going opposition.

Sophistry : From the qualification that follows, it appears that Locke does not mean by 'sophistry' what it usually implies, namely deliberate intention to mislead by false argument. He treats it as synonymous with fallacy or false argument. **Under their proposition** : as they believe firmly that 'truth can only be found in the views of that side in favour of which they are prejudiced. **Leads them from it**—takes them away from truth ; misleads them. **Slides** introduces imperceptibly ; slips. **Favourable**—that help their side of the argument. **That is concluded** : (*that* is emphatic) A conclusion comes to appear evidently true by being represented thus favourably ; though that conclusion would have been rejected altogether, if it had been put forward in its true light,—if only clear and definite ideas had been used regarding it.

Glosses : There are two different words written and pronounced alike—(1) *gloss*='brightness or lustre', which is of Teutonic origin, and is allied to *glass, glow* &c., and (2) *gloss*='marginal note' or comment' from L. *glossa* (as in *glossary*)='an obsolete word requiring explanation' traced to Greek *glossa*. (The first word came to mean also 'a specious representation or show.') Here Locke seems to have both these two words in his mind, for though the second meaning is that intended to be used, there is a reference to the other in the expressions "handsome easy" &c.

The putting demonstration : 'It has come to be regarded as an essential feature of good writing (or style) to put in these ornamental comments on what one has to say. It is very unlikely that authors will abandon this ornate style of writing (which gives currency to their opinions as well as gives them reputation) and adopt a more dry and meagre style, taking care to use the same precise terms for their ideas in every instance. This disagreeable, downright precision of language is thought unbearable in any subject except Mathematics ; for in Mathematics, truth forces its way into the mind by conclusive proof, and has no need of a pleasing style to recommend it' **Explication—lit.**, unfolding' ; ex-

* Locke here indulges in a grave irony against writers professedly philosophical, who go out of their way to seek graces of style at the expense of clearness and precision. He was himself often careless in style, but generally clear and almost invariably precise,—ready to repeat the same word ever so many times, if it was the best. There is a story of a learned lady who after reading through his great *Essay* remarked that it would have been perfectly charming but for the constant repetition of one very hard word viz. *Idea*.

pounding or exposition. **Character**—mark. **Esteemed**—considered. **Hard to think**—almost inconceivable. **Serves so well**: Because many readers are attracted by the charm of a flowing style. **Jejune**—*lit.* 'hungry'; dry. **Blunt**—rude. **Stiffness**—want of grace or elegance; severe accuracy.

Prevailed with—persuaded. *Prevailed upon* is the phrase used now. **Looser**—less exact. **Insinuating**—*lit.* 'winding into (the mind)'; insensibly winning favour.

Page 69 **Unvaried terms**—using the same words all through. **Unsophisticated**—pure; unmixed with fallacies. (The word is now most commonly used of men free from the artificialities of society.) **Concerns**—is important for. **Stripped of words**: This cannot be taken literally, for it would be absurd to speak of fixing ideas &c. without words. All that is meant is that words serving only to adorn the subject and to make the reader lose sight of the weak points in the argument, should be disregarded. **Those in question**: the ideas which properly concern the argument. **Slides by**—has nothing to do with. **Foreign**—irrelevant.

That next to them—the men who closely resemble those who write against &c. **Reject any arms**: such men are ready to use any weapons, or means, however unscrupulous (*i. e.* the most sophistical arguments and the worst perversions of truth.) **Indulge**: to carry their love for the opinions they believe to be true to such excess, as to represent those opinions in the most favourable light, clothing them in the style most fitted to attract and impress the readers. [Here we have an instance of Locke's carelessness in the matter of style: "they *think* they may so far allow themselves to *indulge*.....as to permit their esteem . . . give it ... thereby to *gain* &c." is a clumsy and unnecessarily complicated way of expressing the thought.]

One of those: viz. either (1) readiness to use any sophistry in maintaining opinions they do not themselves believe in, or (2) readiness to represent in an unduly favourable light what they believe to be true.

Is fit—is proper that.

Page 70. **Pure ideas**—ideas not obscured by means of misleading words; (explained by *Divested of* &c.) **False lights**—wrong representations. **Suffer not**: should not allow the terms to be changed however slightly. [Read **makes** for **make** in l. 10.] **Warehouse**: store-room of the worthless thoughts of other men, filled with all manner of rubbish from the pages of various writers. **Unconcluding** (obsolete)—inconclusive; unsound. **Repository**—receptacle. **Stand him**: be of great use to him. **An one: a one** would be used now. **I leave**: I am sure he himself will perceive how shamefully he wrongs his own intellect by filling it with such refuse.

Sec. 43. **Verities**—truths. **Becomes our prudence**—is a

prudent thing for us to do. **Incidental**—not essential. It is **much worse** : on the old Socratic theory that honest ignorance was better than false knowledge ; because, in the one case the would-be painter knows that he is learning nothing, while in the other students of logic fancy that they have mastered all knowledge worth acquiring. **Warmed**—heated, i. e. distracted. **Airy**—unreal ; empty.

Page 71. Descend: drudgery—degrade themselves by the dull labour. **Professed way** : and he abuses his intellect while pretending to be advancing in knowledge. **Abundance of questions** : and the same thing might be said of the great variety of questions or topics, and the useless discussions about them, amongst Schoolmen.

In which consistency—which (fundamental truths) give coherence to these other truths—make the latter form a systematic whole. **Teeming**—fruitful. **Rich in store**—valuable and plentiful. **Newton** (1642—1727) Sir Isaac Newton's great work, the *Principia*, was published in 1687. **Counted** : regarded as the foundation of physical science. **Which, of what use** : (Sentences of this inverted structure are hardly admissible at the present day.) And he has shown how well this discovery serves to explain the way in which the solar system is held together, so as to astonish all men of culture. **Doubts in social morality**—all difficult questions regarding our duties to others.

Sec. 44. Bottoming—placing upon a rational basis.

Page 72. Topical—confined to some stock subjects of dispute. **Store** (no longer quite idiomatic in this sense)—great abundance. **Stability**—permanently settling down.

Grand Seignior—Sultan of Turkey. [Locke speaks of this ruler merely as the type of a sovereign prince. The question of the right of a king to tax his people without their consent occupied many minds during the 17th century, and the upholders of the divine right of kings and of the theory of an original contract (by which the people were supposed, as in the works of Hobbes, to have surrendered all their rights to the ruler) regarded such a right as self-evident.] **Naturally equal** : i. e. equal as regards political rights. Thus Filmer, a staunch Royalist, contends in his *Patriarchia* that there never was a time when men were equal,—that from Adam, Noah and other patriarchs of old, the supreme power of heads of families had passed to the kings of later times.* The first of Locke's two treatises on Government, was devoted to disproving the principles of Filmer and his school (see introduction.) And having demo-

* "It is true, all kings be not the natural parents of their subjects ; yet they all either are, or are to be reputed, the next heirs to those first progenitors, who were at first the natural parents of the whole people, and in their right succeed to the exercise of supreme dominions."—*Patriarchia*. Filmer then tries to prove that it is unnatural for the people to govern or choose governors, and that positive laws do not infringe the natural and fatherly power of kings.

lished the theory that the rulers on earth derive their authority from "Adam's private dominion and paternal jurisdiction," Locke proceeds in his second treatise to prove that the natural state of all men is not a state of war as Hobbes held, but a *state of freedom* (within the bounds of the law of Nature) and also a "*state of equality wherein all the power and jurisdiction is reciprocal, no one having more than another.*" Upon that it turns : the following extract will show how Locke makes out this dependence : "Thirdly, the supreme power cannot take from any man any part of his property without his own consent. For the preservation of property being the end of government, and that for which men enter into society, it necessarily supposes and requires that the people should have property—without which they must be supposed to lose *that* by entering into the society, which was the end for which they entered it. For I have truly no property in that which another can by right take from me, when he pleases, without my consent"—Locke on *Civil Government*, B. II. ch. XI. In Ch. VII he shows also that such absolute authority as is claimed by the Czar or the Grand Seignior is inconsistent with the very constitution of civil society; for it would be absurd to maintain that when men, quitting the state of Nature, entered into society, they agreed that *all of them but one* should be under the restraint of laws; but that he should still retain all the liberty of the state of Nature, increased with power, and made licentious with impunity."

Sec. 45. Unconcerned—careless. **Forwardly**—rashly; too hastily. **Resty**—restive, impatient of control. [In one sense the fact that thought is ungovernable may seem quite consistent with its being free; but when thought is said to be free, what is meant is that *we are free to think as we please*: for it would be absurd to set up *thought* as an independent entity apart from the person that thinks.]

Page 73. Above taken notice of: Sec. 3, p. 15 (last para.) **Grow into**: gradually acquire a knowledge of such ideas as would furnish it more plentifully with what might usefully occupy the thoughts.

Recommended: which we are compelled to think of under the influence of some passion—*e.g.* when we brood over an insult or a plan of revenge, or are filled with enthusiasm for anything. **Dislodged**—removed. **As if posse**:* we are mastered by the passion which is, as it were, the sheriff of the mind for the time being accompanied by a body of men to carry out his orders. (*viz.* all the thoughts and feelings roused by that passion.) **Sheriff** originally "Shire-Reeve". Reeve comes from A. S. *reafan*, to seize or levy. In early times the Sheriff represented the lord of a district,

* Cf. "—One master passion in the breast,
Like Aaron's serpent, swallows all the rest."

—Pope's *Essay on Man*, Ep. II.

whether a township or Hundred, at the folk-mote (people's meeting) and levied the lord's dues, performing also some judicial functions. **Posse** is a contraction of *Posse comitatus* (lit the power of a county) which comprised all able-bodied males within the county between the ages of 15 and 70,—who were bound to aid the sheriff in the execution of his duties—*e. g.* in suppressing invasions, rebellions, riots, capturing criminals &c. **Who.. almost—**there is hardly any one. **Advances itself &c.**—hardly enables the mind to make the slightest progress in &c. **Advance** has a causative force. **Hugs**—embraces; is attached to. **Pores on**—studies; contemplates. **Worse sense**: *i. e. possessed with* devils; under the influence of Satan, or of the Black Art. **Strong application**—energetic effort or powerful stimulus. **From their secret cabinet**: (*from* is not to be found in some editions, but is necessary to make the meaning clear) from the recesses of their own hearts,—where they were kept confined, as it were. **Puppet**—the idle thoughts, or interests—which pre-occupied them.

Dumps (row always used humorously, or by way of a joke)—a gloomy or depressed state of mind. **Carries them away**: 'makes them absent-minded.'

Page 74. Did this state: If a man always remained absorbed in this fashion, people would unhesitatingly call it madness; and even when it comes after long intervals, it does for the time prevent the mind from advancing in knowledge; it is like going round and round the same track, like a mill-horse, that cannot help a man forward in his journey.

Legitimate passions: such as a man may reasonably entertain—as enthusiasm in a good cause. **Occasional affections**—passing fancies. **Such a flaw**—so marked a defect in the understanding, as to appear to have no power of understanding left to us sometimes. **Little better than so**: if we cannot use it for those purposes to which we wish to apply it, and which urgently call for its exercise, it is as if we had no understanding at all.

Thought on: 'thought of' is the phrase now used. **Regulate the cure**—adopt the remedy that will suit the case.

Instanced in—brought forward as an illustration. **Concern of it**—what it is interested or anxious about. **Drooping under**—pining for.

Page 75. Works itself: Gets warm or violently excited over the subject. **Career**—*lit.* 'a run'; *i. e.* eagerly rushes to some opinions. **Bowl**: from the favourite game of bowling (which then occupied the place that the game of lawn tennis does at the present day.) **Heat**—fit of excitement.

Third sort: of the diseases of the mind. **Dandles**—shakes on the knees (as in fondling a child): takes pleasure in. **Scrap of poetry**: An amusing instance of this is furnished by the American

humourist, Mark Twain, in his story of a man possessed with some amusing tram-car jingles which he could not get off his head for day and weeks together, till he was almost driven mad by them. The lines are :

Conductor, when you receive a fare,
Punch in the presence of the passenjare !
A blue trip slip for an eight cent fare,
A buff trip slip for a six cent fare,
A pink trip slip for a three-cent fare,
Punch in the presence of the passenjare !
(Chorus) Punch, brothers ! Punch with care !
Punch in the presence of the passenjare !

Chiming—making an incessant music or rather jingle. **No stilling** no means of silencing. **Experimented** (here) experienced. **Frisking**—dancing, fantastic. Cf.—“They went waltzing through my brain”—*Mark Twain*. **Importune**—incessantly occupy ; pester. **Odder**—more curious or strange. **Make this doubt** : *doubt* here means ‘supposition’ ; *make a doubt* is not idiomatic at the present day. The supposition is contained in a preceding sentence—“Whether every one,” &c. **Quick an exit** : passes away as rapidly as the one that preceded or introduced it.

Page 76. Have its turn—be then dismissed. **Excellent parts**—great intelligence. **Notice** : the word would now hardly be thought appropriate here. **Had much ado** : what we had great difficulty in making her believe, when we talked about it. **Intruders**—faces which she did not wish to see. **Mechanical**—purely physical. **Matter and motion**—what had entered into the blood &c. and had warmed it (or made it circulate with greater rapidity.) The changes in the system produced for the time being by the unusually large quantity of tea the lady had taken, are referred to. **Animal spirit**—a supposed fluid substance in the body, (on the supply or state of which a person’s cheerfulness or depression &c. was thought to depend.) The state of the nerves was accounted for by reference to this fluid,—a cheerful mood being supposed to imply the possession of high animal spirits.

Prosecute—pursue ; entertain one after another.

Spontaneous current—flow or course, not prompted by any passion. **Humour**—indulge ; lazily permit. **Triflingly**—in what is useless. **Corporeal**—of the body. **Captivated**—made a captive of ; imprisoned. The word is now always used in a second ary meaning—‘fascinated’, or ‘charmed.’

Page 77. Pains : our efforts are sure to succeed. **It was upon**—the mind was engaged in (the phrase would now be hardly appropriate.) **Contrary practice** : of indulging ‘these trivial attentions’. **Well advanced** : has made considerable progress in leading the mind back into more serious subjects. **Incidental**—stray ; random.

At a venture—aimlessly, **Insignificant**—meaningless. **Buzz &c.** Such as “Punch in the presence of the passenjare”, with its foolish jingle. **Profitable**—Efficacious. **Remedy** : viz. vigorously employing our thoughts on some work.

ANALYSIS.

1. Introduction. (A.) *Importance of guiding the und. rightly.* It is by the understanding, that a man conducts himself ; his will (or rather the man himself in willing to do anything) is influenced by the knowledge, true or seeming, in the understanding, which furnishes him with reason for what he does. It is the ideas in men's minds that constantly govern them. Hence the importance of guiding the understanding aright.

(B) *Uselessness of Logic as generally studied.* Some more perfect and adequate means of guiding the understanding is needed, as Bacon recognised.

2. Parts There is great difference perceivable amongst men in point of intellect,—due not so much to natural defect, as to neglect on the part of many to cultivate their understanding ; which keeps them in error and ignorance all their lives.

3. Reasoning. (A) Three ways in which men fail to make proper use of their reason,—besides the want of definite ideas &c. (i) Following the examples of others,—parents &c.—with implicit faith, instead of using their own reason ; (ii) being influenced by passion, (interest, humour party-feeling &c. instead of reason ; (iii) narrowness, or partial views. (B) Human beings are all more or less subject to this last defect ; hence the usefulness of consulting with others, and trying to see things from their point of view. We are led astray not so much by error in the process of reasoning as by an imperfect knowledge of the principles on which the reasoning is to be based. (C) Many men of study and thought are unable to advance in the discovery of truth through this narrowness, which keeps them confined to a little world of their own, (beyond which all appears dark and worthless to them.) Such men are compared to the savage inhabitants of the Marian islands, who despised the civilization of other nations, in the pride of their ignorance. (D) We should not therefore limit artificially the horizon of our thoughts, but keep our minds open, receive light from all directions, examine any opinions before rejecting them as false, and be ready to make a laborious search for truth, separating it from falsehood by the touchstone of natural reason, that every man is furnished with. (E) It is the want of exercise of this common sense in day-labourers and country gentlemen that make them so markedly inferior to towns-people in intelligence (F) The artificial divisions and systems—each regarded infallible by its

followers—blind men to truth, especially in matters of religion. (G) Most men can acquire a general knowledge of the subjects that the world expects him to be versed in, consult the best books dealing with such subjects &c., and above all use the freedom of his reason. He should distinguish between a man of reason and a mere clever sophist; and never suffer reverence or prejudice to affect his adoption or rejection of any opinions.

4. Practice and Habits. (A) Nature has endowed us with faculties capable of almost anything and it is want of exercise that prevents their development. The wonderful feats of rope-dancers and even of many skilful artisans which appear almost incredible are solely due to practice; and even wit, humour, or readiness in telling stories &c. may be traced to a similar process of growth by constant practice, though indeed natural disposition may often first give rise to it. (B) It is not by set rules, such as Logic deals with, that perfection can be attained in anything. (C) It is wrong to blame nature, when the fault lies in neglecting to improve properly one's natural parts; we find for instance, men stupid in talking of religious matters, who are sharp in making a bargain.

5. Ideas. Necessity of getting definite ideas, and of thinking about them rather than about mere empty words.

6. Principles. (A) Opinions are based on such foundations as respect for the leaders of one's party, prejudice against another sect, reverence for antiquity or contempt for what is new. (B) Even after men have been shown how unreasonable it is to judge of truth and falsehood by such standards, they go on using them. They often do so not to impose on others, but because they deceive themselves, and because the mind must have some foundation, whether true or false, for the opinions it entertains. Especially in matters of religion, men are not permitted to be wavering, but must take up some tenets together with some principles supposed to be satisfactory. (C.) It is because people cannot follow a long series of arguments, that they often accept principles which do not really support their opinions. (D.) Men do not perceive or recognise that they want this power of reasoning. In their daily life, when they go wrong and come to grief, it is not such want to which they attribute their mishap, but to unlucky accidents, fault of others &c. (E) The only remedy for this is to train people early to habits of close thinking. (F) Those who are found reasonable is one thing are wrongly concluded to be so in all. It is indeed true that he who is reasonable in one thing, *may be taught to be so* in others. (G) Men of inferior education, are found no better than idiots if they are taken out of their narrow groove of thought, where the few rules they have always relied on, fail them. If forced to give up those maxims, they often grow quite sceptical. (H.) Though it is not impossible to improve the understandings of grown-up men, it is only by much industry and application that such a result can be attained. (I). What is at first very difficult to understand, seems

quite plain after the mind is opened by degrees to perceive the connection between ideas, as is illustrated in the slowness with which boys grasp mathematical demonstration.

7. Mathematics. (A) The habit of reasoning closely which the study of mathematics gives is valuable to those who are not meant to be deep mathematicians, as it can be transferred to other branches of knowledge. (B) But in matters admitting only of probable reasoning, and not mathematical demonstration, it is necessary to weigh all the arguments on one side against any on the other side in order to come to a decision. (C) The method of disputing in scholastic logic,—of insisting on some topical argument—is quite misleading in the complicated reasoning by probabilities. (D) The mind should therefore be trained early to view a thing from all sides, and not be misled by presumption, laziness, or rash haste. (E) To the objection that this would require every man to be a scholar, it is replied that it is a shame for those who have received wealth or competence from their ancestors, not to make proper use of their ample leisure and means. (F) The importance of the study of mathematics : (i) it teaches men to be less presumptuous, by showing them how little their natural parts, without practice, help them to understand close reasoning ; (ii) it shows the necessity of clearly analysing the ideas, and rigorously excluding all that is irrelevant ; (iii) it habituates the mind to a long train of reasoning. (G) As to those who have less time and means, what is proposed is not of vast extent ; it is not too much to ask that they should be conversant with what they have every day to deal with or talk about.

8. Religion. Every one has a concern in a future life, and should therefore learn to reason aright in matters of religion. If men would but use their Sundays properly, and receive the assistance of those who are fitted to instruct them, they need not be in gross ignorance on this subject. Men of a humble station in life are often found well-instructed in religion, as among the Huguenots in France. But even if such men be supposed doomed to ignorance, there is no excuse for men of means who neglect to avail themselves of their opportunities in a matter of such deep importance.

9. Ideas. (A) Our minds are constantly receiving ideas of external things ; care should therefore be taken to store our minds, with general or abstract ideas, in which they are so often found poor. (B) Knowledge consists in the perception of the agreement or disagreement of ideas. And since it is hard to make out such relations between things actually before the eye—as in contemplating a mathematical diagram,—much more so is it in the case of abstract ideas. These latter must therefore be very clearly settled in the mind, if we are to have correct knowledge of moral or religious subjects, and not to entertain inconsistent notions.

10. Prejudice. (A) People complain of the prejudices of others,

but do not perceive their own. (B) The way to detect a prejudice is to see whether one is prepared to listen to, and calmly consider the arguments that go against his cherished opinions. For if a man's opinion be based on sound principles, why should he be afraid to subject it to strict proof? To show that he is a lover of truth a man must (1) be impartial, (2) ready to examine.

11. Indifferency. To be impartial, one must not be strong in his adherence to any opinion, or wish it to be true, till he knows it to be so; and not think that all is gone unless he maintains tenets which have no other evidence but respect and custom.

12. Examine. (A) To examine is to try whether one's principles are certainly true or not. (B) The inability to do this is not due to any natural defect, but to the bad habit of taking principles at haphazard, upon trust, and of believing a whole system with childish credulity, presuming that it is sound. (C) Freedom of the understanding consists of these two elements: (1) impartially welcoming all truths, and (2) not receiving any principles till we are fully convinced of their solidity, truth and certainty. The great road to error is to be indifferent whether what we receive is truth or not, instead of being indifferent which of two opinions be true—the latter being the right temper of mind that preserves it from being imposed on. (D) The business of education is not to perfect a learner in any science, but to give his mind such freedom, disposition and habits as may enable him to acquire any branch of knowledge. This is "well-principling." (E) The opposite course, of instilling a reverence for certain dogmas, ends in perfect scepticism, when on coming out into the world, one finds he can no longer rationally believe such dogmas. (F) The next few sections deal with certain defects that hinder the mind in its progress towards knowledge.

13. Observation. (A) Particular facts form the basis on which all knowledge is built; but the mind is unable to utilise these facts properly, through either (i) too great a readiness to make observations (*i. e.* general remarks) on such facts, or (ii) undue slowness in doing so. Those who fall into the second error merely cram themselves with all manner of details, without generalising on them; and may be said to have but the materials of knowledge. Those who fall into the first error, run into unsound generalizations, and are perhaps more harmed by their studies. (B) The middle course is to take useful hints, sometimes from single facts, and then have the hints either confirmed or reversed by a wide reading and examination.

14. Bias. No body indeed professes not to know and think of things as they really are, but many are influenced in their judgment of men and things by their interest, faith, party &c.; and these they call the cause of God, or the good cause. They

should consider that a good cause needs not the help of any undue bias, and that truth will support it.

15. Arguments. (A) Instead of receiving opinions supported by strong arguments, men perversely adopt the practice of espousing opinions and then collecting arguments in their favour. (B) Bookish men often collect arguments on both sides, caring only to dispute cleverly, not to discover truth. (C) A great variety of arguments serve only to distract the understanding, and to make a man lean on others, instead of on his own understanding.

16. Haste. (A) It is right to economise our labour and adopt time-saving processes of attaining knowledge. But people often content themselves with improper ways of search, either through haste or laziness, (i) relying on testimony where proof is needed, (ii) resting satisfied with one argument, where many are needed to establish a reasonable certainty, (iii) or with probable reasoning where strict demonstration is available. The nature and manner of proof adapted to an inquiry should be first considered (B) In merely hovering about truth, the mind is amused with uncertainties, and is but capable of a variety of superficial plausible talk ; (C) A further effect of haste is that arguments are not traced to their true foundation, men merely jumping to the conclusion, and becoming full of fancy, conceit, and obstinacy in error.

17. Desultory. Another evil habit, resulting from laziness, is skipping from one knowledge to another, any study long continued being felt intolerable.

18. Smattering. Pretensions to universal knowledge lead to superficial notions and smattering in everything.

19. Universality. (A) It is not, however, wrong to acquire a general (not superficial) knowledge of most subjects, if the object be not mere display in vain talk, but to enlarge the mind and fill it with true ideas. (B) Though few men are able to attain a thorough knowledge of all subjects, more may be done in this direction by men of leisure and means, than is ordinarily thought possible. (C) The advantages of universality : (i) To accustom our minds to all sorts of ideas and proper ways of examining their relations ; (ii) it gives a freedom to the understanding, as well as sagacity, wariness, and versatility ; (iii) it is a preventive against narrowness, or the tendency to look at everything from the point of view of one's exclusive study (illustrated in the vagaries of metaphysicians, chemists, musicians &c.) This is avoided by giving the mind a fair and equal view of the whole intellectual world. (D) This may be unattainable in old men, but may be attempted in the education of the young—which should aim not at perfect knowledge in any one of the sciences, but to open and enlarge their minds, and fit them for every kind of study. See sec. 12.

20. Reading. (A) Reading only furnishes the mind with

materials of knowledge ; it is thinking which makes what we read ours (B) And only some writers give us deep thoughts, and light for us to be guided by ; the others only furnish facts, and the knowledge gained from them is but second-hand serving for ostentation. (C) The mind should, by severe rules, be trained to trace every argument in books to principles and examine its soundness. The cultivation of this faculty gives one the key to books, without which one would be lost in the intricacies of a variety of arguments. (D) It is only those whose reading is intended for talk and not true knowledge, who will regard the practice of unraveling every argument to be a hindrance to progress, in studying. (E) It is only at the beginning that this will make progress slow ; when one is used to it, he will have a wonderful quickness in seeing the drift of an author's arguments &c.

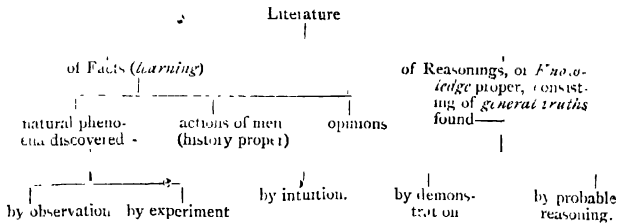
21. Intermediate Principles. (A) The mind should provide itself with several stages in reasoning from first principles to the conclusions sought ; these are intermediate principles, which may, when established, serve to prove other points more clearly than reasoning from remote general maxims. (B) This is best seen in Mathematics ; in other subjects, care should be taken that these intermediate principles are not hastily assumed upon credit, inclination, interest &c.

22. Partiality. Partiality to certain studies is as misleading as partiality to opinions, (see sec. 10 and 14) - causing one to be vain of his own branch of study and ignorantly despise others ; though it is indeed reasonable that one should have love for what he makes his peculiar study.

23. Theology Such partiality is markedly observed in students of theology, which is often narrowed into a trade or a faction, — though properly viewed, (as the knowledge of our duty to God and our fellow-creatures, of our present and future states) it ought to be studied by all who deserve to be called rational, as it comprehends all other knowledge directed to *'its true end,—i. e., the honour of the creator and the happiness of mankind.*

24. Partiality. (A) Returning to the subject of section 22, the author goes on to say, that even when this partiality for a favourite study does not lead to contempt of all others, it may be intruded into subjects with which it has no real affinity. This is illustrated in those who are mere mathematicians or mere chemists. (B) Things are to be considered as they are in themselves, and not as viewed through the spectacles of books ; we should not try to bring things to any preconceived notions of our own. (C) Another partiality equally ridiculous and injurious, is attributing all knowledge either wholly to the ancients, or to the moderns. Truth is always the same, is neither decayed by time, nor is the worse for being new. What is old to us, was new at one time ; and what we newly discover, will be old to posterity. (D) A third form of partiality shows itself either in overvaluing or under-estimating

what is the common or prevailing opinion ; of either holding that *vox populi* is *vox Dei*, or despising the many-headed beast as they style the mass of mankind. Those who reject vulgar opinions as only suited to vulgar capacities, are often ready to welcome any paradoxes or startling novelties. (E) A fourth form of partiality is attaching undue importance to writers who favour one's cherished opinions. (F) Reading is not synonymous with study ; what we find in books is not always knowledge. All that we find in books may be divided thus :—



Knowledge of *facts* is only *learning* as distinguished from *knowledge*—which consists of general truths discovered by human reason. (G) Though books are great helps to the understanding, they prove a hindrance to many, who make no great progress in real knowledge with all their incessant reading. (H) It is not by mere reading, but by understanding what one reads, and following the train of reasoning in books &c., that an author's knowledge is transfused into the reader's mind, and is assimilated by the latter. (J) Whatever is not fully understood is merely taken upon trust, and is but implicit knowledge. An author's testimony may be of value in matters of *fact*, but cannot affect the truth and falsehood of *opinions* depending on proof. (I) It is indeed an advantage to have the proofs discovered and laid in order by previous writers ; but to make proper use of these we should not hastily peruse them or only retain their opinions and remarkable passages in the memory, but enter into their reasoning, examine their proof, &c.

25 Haste. (A) The very eagerness to acquire knowledge may be a hindrance, if it prevents one from staying long enough in what is before him. It is by digging that men discover rich mines. (B) But one should not dwell too long on mere niceties and subtleties, stopping to pick up every pebble, as it were, on his way. The value of truths depends not on their difficulty, but their usefulness. (C) Another kind of haste leads one to run into general observations too readily (See Sec 13)

26. Anticipation. Men often content themselves with any appearance of knowledge, right or wrong, and hold it fast when once got. Such stiffness of the mind is the result of prejudice, and is plainly the result of an abuse of our faculties.

27. Resignation. An error of an opposite kind to the preceding, is met with in those who resign their judgment to the last man they hear or read. This is like drawing lots to decide which opinions are true ; for it is a matter of accident which opinion is presented last to one's mind.

28 Practice. (A) It is wrong to employ the mind on a task beyond its strength, as the result is a long or permanent depression or dislike to studies requiring thought. It is by insensible degrees that the understanding should be brought to the difficult parts of knowledge. "He that begins with the calf may carry the ox." (B) On the other hand, it enervates the understanding to be too timid about facing what seem difficulties, so as to hover about the surface of things. (C) Though learners must first be believers, it would be wrong to dwarf the intellects of the young by the weight of too much reverence.

29. Words. One should not take any term to stand for anything without having a clear idea of that thing—though the use of the term may be one sanctioned by high authority. There are many terms—like *substantia*² *forms* &c. which are really meaningless or mere empty sounds, though used by philosophers. It is useless to try to understand him whose ideas are not clear, and who uses words without being sure what they mean. Words are not made to conceal, but to declare and show something. (The subject is pursued in sec. 31.)

30. Wandering. (A) It is of great advantage so to direct the train of our thoughts, that only such as are strictly pertinent may enter the mind engaged in an inquiry—or that we might dismiss irrelevant ideas. (B) There is hardly any effective remedy for this defect ; all that can be proposed is that by frequent attention and application, one should get into the habit of not wandering from the subject. In children, it is not by chiding or other harsh measures that their minds can be kept from straggling ; but by gently leading back their wandering thoughts.

31. Distinction. (A) The author distinguishes between *distinction* and *division*,—the former he takes to mean perception of some natural (and true) difference, and the latter mere artificial (*e. g.* logical) subtleties. However useful it may be to discern every variety in nature it is not convenient to consider every difference in things and to divide them accordingly into distinct classes. Arbitrary verbal distinctions without any distinct notions corresponding to the terms invented, neither clear difficulties nor advance knowledge. (B) If our ideas are settled and definite, there would be no need of the multiplied scholastic distinctions. Infinite sub-divisions only confound the mind of the reader, and indeed not seldom that of the writer himself. Discussions about equivocal terms &c. appertain more to dictionaries and commentaries than to real knowledge and philosophy. (C) The dexterous management of terms is a great part of *learning*, as distinguished

from knowledge—which consists in perceiving the relations of ideas one to another, as may be done without words (?) In empty disputations, it is indeed the interest of one side to use as comprehensive terms as possible, to entrap the adversary into incautions admissions; while, on the other hand, the opponent has a manifest interest in drawing hair-splitting distinctions to baffle that intention. (D) Where there are no terms in the language answering to every distinct idea, all that need be done is to affix distinguishing terms to the words already in use, instead of inventing perfectly new terms. (E) The opposite error of jumbling things together in which any likeness is to be found however superficial, is equally to be avoided.

32. Similes. Figured and metaphorical expressions do well to illustrate more abstruse and unfamiliar ideas; but they must not be used to paint the ideas we have not, or take the place of real and solid truth, and to lead them to think they understand what they really do not. Men who abound in similes often get a credit as plausible talkers, capable of striking the fancy. Whatever may be their usefulness to orators, their use should be kept within strict bounds in philosophy and science.

33. Assent. Everybody admits that our assent should be regulated by evidence, and yet most people firmly embrace doctrines upon slight grounds, or waver in everything and some even reject all as uncertain. The only remedy to be proposed is that one should use his eyes, and not let them be dimmed and dazzled by interest, by passion, by the habit of arguing on any side regardless of truth &c. (B) There are so many ways of fallacy, of dressing up falsehood in attractive colours, that the greatest caution has to be constantly used. (C) He that has a mind to believe has assented already.

34. Indifferency See secs, 11, 12 and 14. (A) Though perfect freedom from bias or error is unattainable, the directions here given may make us more cautious and inclined to examine what we receive as true; and may convince us that it is we who fail to make a right use of our faculties, and not the faculties that fail us. (B) Generally people accept unquestioningly the opinions of their country or party, and are applauded for doing so; while those who think are regarded dangerous, as likely to deviate from orthodoxy. This makes bigots of the shortsighted and sceptics of the more cautious. (C) Those who attach so much importance to orthodoxy, should think how local a thing it is; in almost every country and community, (whether civilized, semi-civilized, or barbarous), there are certain opinions similarly received as infallibly true. What safety is there, then, in blindly accepting the current opinions?

(D) There are three states, in one or other of which a man deficient in knowledge must be: (i) *wholly ignorant*; (ii) in a state of doubt as to the opinion he has already received, or is about to receive;

(ii) obstinate in adhering to what he embraced without examination. The first is the best of the three, as it keeps the mind open to truth.

35. Ignorance with indifference. (A) This second state nearer to truth than opinion unreasonably clung to. (B) The third is the worst of all, for if an error has been received for truth, there is no means of correcting it. (C) He is who is wholly ignorant should inquire directly into the nature of the thing itself, not minding the opinions or disputes of others, or even temporarily taking up any particular side, lest he should be insensibly biassed. (D) For instance in medicine, it would be better to consult Hippocrates at first hand, than read any of his voluminous and conflicting commentators, lest one should be prepossessed by the subtle interpretations (or rather modifications) introduced by the latter.

36. Question. This "indifference" will also enable people to state the question aright.

37. Perseverance. (A) Another result will be that each man will pursue with regularity and constancy the method best fitted to the nature of the thing. (B) While, however, men with small leisure need pursue no great extent of knowledge in this way, there is no excuse for those who have much time and energy to spare.

38. Presumption. (A) Hardly any one is without some defect of the understanding. Some think too highly of their parts, and fancy they need no culture to reap knowledge. We are born ignorant of everything, and receive only superficial knowledge of external things, from the impressions they make; to acquire any deep knowledge requires labour, close application, and method.

39. Despondency. (B) On the other hand, there are men who despair of attaining any knowledge outside their ordinary business, on first meeting with a difficulty. (C) But strength of intellect grows with exercise, and a firm belief that we shall conquer goes a great way in effecting that conquest. (D) Things at a distance, and viewed as a whole, appear terrible, the understanding raising spectres to flatter its own laziness; but on a nearer view, and reduced to distinct parts, the difficulty will vanish. Most readers have had experience of this. (E) Care should be taken to advance step by step, slowly; but whoever tries it will find that in the long run, the progress made will be quicker than by any other method. (F) The mere distinct stating of a question, separating clearly the various parts of it, often does more to clear it up than talking whole hours about it as a whole.

40. Analogy. Analogy is very useful but may be misleading, if we do not confine ourselves to the real points of resemblance between things.

41. Association. (A) Wrong and unnatural connections are formed by this process between ideas, which it is very difficult for

the mind, to get rid of, without that habit of looking into principles which religious teachers often do their very best to suppress. (B) From this it may be suspected that such teachers are not unaware of the weakness of their arguments and principles. (C) The method of teaching children to imbibe their teachers' notions implicitly, is radically faulty, though it may be defended perhaps in teaching the lower orders whose time is taken up in manual labour. But the early teaching imparted to the leisured classes should certainly aim at preventing such unnatural and harmful associations, and at accustoming them to examine those ideas that they do find linked together in their minds. (D) It is better to prevent than cure this evil when once rivetted by habit : in the latter case one must carefully observe the quick working of the mind. (E) These quick motions may be illustrated in the transference of ideas of sense into those of judgment, as when from certain visual signs we conclude that an object is solid.

42. Fallacies (A) Most authors exhibit evident bias towards one side or the other of questions they discuss. This may be detected by noting how often they change the ideas of the question, either by changing the terms or by adding new terms. (B) This seems direct sophistry ; and yet it is often not meant to impose on the reader, but merely shows how the writer himself is imposed upon. (C) *Cause* : It is through false ideas about style, that authors introduce these graceful expositions which lead them astray,—a plain, strictly precise style being thought intolerable except in Mathematics. (D) *Remedy* : It thus behoves readers to fix in the mind the distinct ideas of the question, and to observe how they are connected in argument, apart from the words used ; by this means they would find out where any foreign ideas were brought in. (E) For those who find the above process too tedious, the remedy is to avoid controversial works, or be very cautious which of them they read. For writers in defence of the tenets of a party are either sincere or write against their convictions ; in the former case they honestly believe themselves bound to present their views in the most attractive light, and are carried by zeal into exceeding the truth ; in the latter, they are most unscrupulous sophists. (F) Every man can, if he has a mind to it, keep the precise question steadily in his mind. If he does not, he makes his mind the “warehouse of other men's lumber,” thus abusing his intellectual gifts.

43. Fundamental verities. (A) We should employ our thoughts, by preference, on fundamental questions, avoiding trivial ones. (B) Purely logical studies simply waste the time of many young men ; and what makes this waste all the more deplorable, is that the student fancies that he is advancing greatly in knowledge all the time, and comes to despise the drudgery of experiment and inquiry. (C) There are many fundamental truths, not only beautiful and entertaining, but furnishing light and evidence to other things—*e. g.* Newton's theory of universal gravitation, and Christ's rule of conduct, *Love thy neighbour as thyself*.

44. Bottoming It is important to find principles which satisfactorily explain many difficulties, and furnish easy solutions to questions. Thus the question whether a ruler has absolute right to take what he pleases from his subjects, turns upon the fundamental question, whether men are naturally equal,—the settlement of which solves many complicated questions about the rights of men in society.

45. Transferring of thoughts. In this concluding section the author considers the various causes that lead the thoughts of men astray. (A) *First* what is recommended by any passion takes complete possession of our thoughts, and cannot be dislodged; the mind turns it over and over, without advancing in the knowledge even of that which thus engrosses it. Men are often ashamed afterwards of the absurd figure they make in society while under the influence of such a master passion. Continuance of such a state of mind would certainly be called madness. (B) *Secondly* some subject may for the time arouse a growing enthusiasm, till one is unable to turn his mind to anything else; though when the fit is over, he may be ashamed he was so much excited about it. (C) *Thirdly*, some scraps of verse or something equally trivial, take complete possession of the mind for the time, giving it no rest. (D) A somewhat similar case occurred within the author's personal experience, of a variety of faces passing in a very long train before the mind's eye of a person lying awake, in the dark. It was due in that case to physical causes. (E) The remedy: when one is mastered by passion, it should either be allayed, or counterbalanced with another—an art to be acquired by study. When carried away by the current of our thoughts (not excited by passions,) the remedy is, not to indulge such trivial attentions of thought, but deliberately introduce more serious considerations. We shall have the energy to do this successfully, if we realise the value of the liberty of mind both in business and study, and understand what slavery is to have our minds engrossed by what we would hardly give a thought to, in our sober moments. As to the third kind of pre-occupation, it is only when the mind is lazy or negligently employed, that such absurd trifles continually "chime in the memory". The remedy is to set the understanding vigorously to work.

INTRODUCTION.

I. Chronological Sketch :

1632. John Locke, the son of a country-attorney, was born August 29, in a village in Somersetshire.

1646. Admitted at Westminster school, of which the Head master was the celebrated disciplinarian Dr. Busby. Locke's life at school (six years) led him to form an unfavourable opinion of education in English public schools.

1652. Elected to a Westminster studentship and admitted to Christ Church College, Oxford. Finds the enforced religious observances tedious, and the scholastic disputations utterly unprofitable †

1654. Contributes to an Oxford collection of verses (English and Latin) congratulating Cromwell on the advantageous 'treaty concluded with the Dutch.

1656. Admitted to the B. A. degree.

1658. Takes the degree of M. A. Continues to reside at Oxford.

1660. Appointed Lecturer in Greek at Christ Church College.

1661. Death of his father, and his only brother. Writes some Essays, never published—one of them being on religious toleration.

1662. Appointed Lecturer on Rhetoric in his college.

† The student may consult Prof Fowler's *Life of Locke* in the *English men of Letters* series, and the account of Locke's philosophical opinions in Ueberweg's *History of Philosophy*, Vol. II. pp 82-83.

† He likens the process to *hog-shearing*, and says it can train one up to be "an insignificant wrangler, opimater in discomise, and priding himself in contradicting others ; or questioning everything and thinking there is no such thing as truth to be sought, but only victory in disputing."—*Thoughts concerning Education* (quoted by Prof. F.) It has been generally thought that such education as Locke received at Oxford was utterly thrown away on one destined to be an original thinker. But, Prof. Fowler acutely remarks, "the scholastic training of Oxford had a large share in forming, by reaction, many of his most characteristic opinions. . . . We can hardly doubt that if Locke had not been brought up in a University where logic and philosophy did not form part of the course, his greatest work would never have been written."—*Life of Locke*.

1663. Appointed censor of Moral Philosophy, — a post which he held only for a short time, working at the same time as a tutor.*

1665. Is attached to the English Embassy to the Elector of Brandenburg (afterwards styled king of Prussia). Leaves England and travels on the Continent.

1666. Returns to Oxford, gives up finally all thoughts of entering the Church, intending to study medicine instead, is introduced to Lord Ashley (afterwards the Earl of Shaftesbury) the great Whig leader, with whom an intimate, life-long friendship soon springs up.

1667. Resides in London with Shaftesbury, whom he cures of a dangerous tumour, and acts as tutor to Shaftesbury's only child, Anthony Ashley.

1668. Elected a Fellow of the Royal Society.

1670. Tries, with no success, to be admitted to the degree of M. D. in Oxford. (Afterwards he took the lower degree of M. B., but never regularly practised as a physician.) Entertains, for the first time, the idea of writing his great Essay on the Human Understanding (not published till 1690) Suffers from a disorder of the lungs for about two years.

1672. Takes a short journey to France. Appointed, on his return, Secretary of Presentations (to church appointments), salary £300 a year, by Shaftesbury, now Lord Chancellor.

1673. Loses his appointment on Shaftesbury's dismissal, but soon afterwards gets the Secretaryship of the Council of Trade and Colonies (£500 a year, but the salary was never paid.)

1675. Gets a "Faculty Studentship" at Christ Church and also an annuity of £100 from Shaftesbury, and gives himself up to his favourite studies. Is obliged by ill-health to remove to France, and resides at Montpellier for more than a year.

1677. Comes to Paris; employed there as tutor to the son of Sir John Banks.*

1678. Travels through France.

1679. Returns to England in April, again resides at London with Shaftesbury, now Lord President of the Council, and super-

vises the education of his grandson (afterwards the third Earl of Shaftesbury and author of the famous *Characteristics*.)

1681-2. Shaftesbury's fall, trial, acquittal, and escape to Holland (where he died in Jan. 1683.) Locke lives a retired and somewhat mysterious life at Oxford. Suspected of being concerned in the Rye-house Plot.

1683. Leaves Oxford for the last time, and soon after goes to Holland (where he resides till the Revolution.)

1684. Makes a tour through Holland, with great benefit to his health. Expelled from Christ Church and deprived of his Studentship,—the minister Lord Sunderland having signified to the Dean of the College the king's displeasure against Locke or "factious and disloyal behaviour." (This and the few following years were mainly devoted to his great work.)

1685. Obligated to remain in hiding for several months, his surrender being demanded of the Dutch States-General by King James after the revolt of Monmouth. Writes the *Letters on Toleration* (published in 1690.)

1687. Publication of a summary of his *Essay* in French by Le Clerc.

1689. Returns to England in February, (soon after William III was invited to come over) in the suite of Princess (afterwards Queen) Mary. The new king wishes to send him to Berlin as Ambassador to the Elector of Brandenburg, but Locke declines the high office, chiefly on account of ill-health. On his declining some other foreign appointments, he is appointed a Commissioner of Appeals, and holds the office till 1696. *Letters on Toleration* published (in Latin) in Holland.

1690. Publication of the *Essay on the Human Understanding*, *Two Treatises on Government*, *Second Letter on Toleration* (in reply to the attack of an opponent)—these latter being published under the pseudonym *Philanthropus*. Finding the air of London injurious, he begins to reside frequently at Oates, a manor-house in Essex belonging to his friends Sir Francis and Lady Masham—the latter (the daughter of the philosopher Cudworth) treating him as

a father, and taking the most tender care of his health for many years.

1691. Writes a tract on Finance, opposing the schemes of lowering the minimum rate of interest to creditors of the Government from Six to Four per cent., and of artificially raising the value of silver coins.

1692. Publication of his third *Letter on Toleration*..

1693. Publishes his famous work, *Some Thoughts concerning Education*. Prepares the second Edition of his great *Essay*.

1694. Publishes an Examination of Malebranche's theory of seeing all things in God, and one or two controversial tracts.

1695. *An Essay on the Reasonableness of Christianity*, (followed by some replies to attacks made on the work), two pamphlets against the scheme of 'raising the value of money*' (as a remedy against the great inconveniences resulting from the circulation of clipped coins), a paper containing practical reasons in favour of the freedom of the Press, and against the renewal of the Licensing Act. (This paper was submitted by the House of Commons to the Lords, who were at last prevailed upon to cease pressing for the renewal of the licensing act,—with the result that the English Press at last became free.)

1696. Appointed one of the Commissioners of the Board of Trade and Colonies (revived this year) on a salary of £1000 a year. Increasing ill health, forcing him to live in winter and spring at Oates every year.

1697. Controversy with Dr. Stillingfleet, Bishop of Worcester, who had attacked some of Locke's doctrines. (This famous controversy, which ended in the victory of Locke and won him great reputation, was carried on for two or three years, the last letter appearing in 1699.) Prepares the fourth edition of the *Essay* for the press. Writes the CONDUCT OF THE UNDERSTANDING, (pub-

* Locke's views were accepted by the Chancellor of the Exchequer, Charles Montague (afterwards Lord Halifax), and the old standard value of the silver pieces was retained in the new coins issued, while the old clipped coins were to cease to circulate after a certain date. The Bill embodying this great reform was passed in January 1696.

lished after his death)—intended at first to form a chapter of the *Essay*.

1700. Resigns the Commissionership of the Board of Trade on account of increasing ill-health, in spite of the king's wish to retain his services. This ends his public career.

1703. Attempt on the part of the university authorities at Oxford to stop the study of Locke's *Essay* amongst students, as dangerous to religion.

1704. Begins a fourth *Letter on Toleration* (never completed) failing health. Death at Oates, October 28th. in his Seventy-third year.

II. Locke as a Man. Love of truth and justice seems to have been the strongest passion in Locke's nature. Yet his was by no means the life of a speculative or experimental philosopher. He took intense interest in the affairs of his country, his patron, his friends and relatives. He exercised the rare powers of his intellect on most of the great problems of life, society, politics, and knowledge that pressed for solution in his age. At the same time he exerted himself to promote the well being of those he associated with, in the minutest details of their daily life; and threw himself with energy into the great struggle for civil and religious liberty in which Englishmen were engaged. His piety, deep and fervent as it was, was as far removed as it could be from any narrow sectarianism or bigotry; no man perhaps combined more successfully in himself a spirit of toleration with zeal for what he regarded as truth, an open mind with earnest convictions. The amiability of his disposition and the warmth of his affections were shown in the many intimate friendships that he formed, both in England and Holland. Though he never married, or had children of his own, the gentleness and kindness of his nature secured him the deep attachment of the children his friends. In his letters to the Dutch scholar Furly, he never fails to refer to a little son of the latter, as his "little friend"; a little girl, the daughter of his friend Clarke, he playfully called his "little wife". Another secret of the strong affection that he inspired was his unflinching cheerfulness, even in illness,

which made it a pleasure to take such tender care of him as Lady Masham and her daughter did. He was not of a moody disposition, but was exceedingly sociable, and possessed of a strong sense of humour. He was never querulous or exacting, as one who so long suffered from ill-health might well be expected to become. He was moreover strictly temperate, at a time when hard drinking was not reckoned a vice amongst the highest classes of society, and as a rule drank only water. He thought it was this habit which enabled him in spite of his ill-health, to exceed three score years and ten (the ordinary term of human life) and to preserve his eye sight unimpaired to the very last.

III. Locke as a Thinker. The characteristics of Locke as a thinker are what one would expect from the man—a large measure of good sense, a masculine mind,—“the very type of an English mind,” as Lewes says, “when at its best—hearty, honest in his love of truth,” with a plain directness of manner. No philosopher is more completely free from empty rhetoric, from an assumption of superior wisdom, from prejudices that degrade the mind, or from vague maxims, which seem deep because they are obscure or mystical. To these he united a patient sagacity and an openness of mind which enabled him to change his opinions as soon as he perceived their error.

The charges which it has been the fashion to make against him as a philosopher are superficiality, materialistic tendencies, and want of originality. As to his supposed superficiality, we have to bear in mind how often mere obscurity gives to doctrines as false air of profundity. Locke had a strong repugnance to this artifice, and is never tired of warning his readers against a mistake they are so liable to make. It is the very clearness of Locke that has made people fancy that he is not deep,—a charge to which the best reply is that of Lewes—“Read him.” The reader cannot help admiring “the patient analysis by which he has laid open such vast tracts of thought.”

This analysis is also a clear proof of his originality. It is easy to discover passages in older authors notably Hobbes, which seem

to foreshadow Locke's theory of the origin of ideas, and other characteristic opinions of his. *But to Locke belongs the credit of having built up a magnificent system on that theory, and of developing those views as a consistent and harmonious whole.

As to the materialistic and dangerous tendency of his writings, it is only by taking principles out of his book and pushing them to extremes, that they may be supposed to lead to dangerous consequences; but, as his editor, Mr. St. John remarks, in Locke himself we discover nothing, which is adverse to the best interests of society. He maintains no paradoxes for the mere purposes of exhibiting his metaphysical acuteness and logical power.

H. Rogers, a great admirer of Locke, says on this subject: "But not one of the traits of Locke—neither his logical acuteness, nor his thirst for truth, nor the sagacity with which the prosecuted his search for truth—is more marked than *his habitual recognition of the narrow limits of the human faculties*, and his conviction that the chief function of a philosopher is to ascertain within what sphere men may legitimately philosophise. Acknowledging without shame this fact of the true position of man, he never hesitates to confess his ignorance where he is ignorant, nor even in many cases his despair of ever attaining knowledge. It is refreshing to see with how firm a hand Locke at once applies the knife to those huge wens of *ontology*, as it was called, which had long impoverished all healthy intellectual philosophy."[†]

^{*} The following remarks of Hallam may fitly be quoted in this connection: "No quality more remarkably distinguishes Locke than *his love of truth*. He is of no sect or party, has no oblique design, such as we frequently perceive, of sustaining some tenet which he suppresses, no submissiveness to the opinions of others, nor (what very few lay aside) to his own. Without having adopted certain dominant ideas, like Descartes or Malebranche, he follows with inflexible impartiality and unwearied patience the long process of analysis to which he has subjected the human mind. No great writer has been more *exempt from vanity*; but he is sometimes a little sharp and contemptuous of his predecessors. The *originality* of Locke is real and unaffected; not that he has derived nothing from others, but, as Dugald Stewart says, it is probable that when he began to write he found the result of his youthful reading completely identified with the fruits of his subsequent reflections."—Hallam's *Literature of Europe*, Vol. III., Part IV ch. 3d.

[†] *John Locke: His character and Philosophy*—Roger's *Essays*. Vol II. pp 5—6.

It is chiefly because he rejected such inquiries, that Locke has been often charged with "materialism;" but as he says "Where we know our own strength, we shall the better know what to undertake with hopes of success. It is of great use to the sailor to know the length of his line, though he cannot with it fathom all the depths of his ocean. It will be no excuse to an idle servant who would not attend his business by candle light, to plead that he had not broad sunshine. The candle that is set up within us shines bright enough for all our purposes."

The above words exhibit Locke's **Method**, which was essentially nonmetaphysical, and purely psychological or *introspective*. He is the founder of modern psychology. His method has been called **Empirical**, because it consisted in watching patiently the operations of the mind in acquiring experience. This brings us to—

IV. Locke's theory of Ideas* ; the Essay on the Human Understanding. In the first Book of his great Essay, Locke examines the doctrine of Innate ideas, which had been almost unquestioningly received before his time. The doctrine was that besides the notions we derive through experience, there are others—which are the source of all certainty—which are received into the soul at birth, and which it brings with it into the world. In proof of the existence of such ideas, they appeal to the universal existence of them in every human being without exception. Locke contends however, that (i) even granting this to be the fact, it would prove nothing, if we can explain it in a different manner, and (ii) that it is not the fact. These principles thought to be admitted by all, are either (a) speculative (*i. e.* theoretical) or (b) practical (*i. e.* serving to regulate conduct.) As to *speculative principles*, supposed innate, he shows that even the propositions which have the greatest claim to universal validity, (such as "Whatever is, is" or the so-called Laws of Identity, Excluded Middle &c.) are not universally assented to. We should expect them to be

* Locke's definition of *Idea* is contained in the following sentence: "It being that term which I think serves best to stand for *whatsoever is the object of the understanding when a man thinks*, I have used it to express whatever is meant by *phantasm, notion, species, or whatever it is which the mind can be employed in thinking*," *Hum. Und.* B. I. Ch. I.

known to children, idiots and savages, (as is not the fact), for "to be in the mind" is the same thing as "to be known". Locke then deals with the plea that "men know these innate principles as soon as they come to the use of Reason." (1) If Reason discovered them, that would not prove them innate. (2) It is wrong to say that Reason discovers them—we may as well say that the use of Reason is necessary to make our eyes see. (3) The fact is that the said axioms come much later into consciousness than many particulars of knowledge. "The child knows the difference between the ideas of sweet and bitter (*i. e.* that sweet is not bitter), before it can speak," and it can not be maintained that such particular propositions as "sweet is not bitter" come later than the Law of *Contradiction*. (4) If such ready assent be a mark of innate, then "one and two are equal to three" and a thousand propositions of the same kind must be innate also,—especially since these less general propositions can be proved to be known before the so-called universal maxims. (5) These maxims not being sometimes known till proposed, proves them not innate. For to say that they were implicitly known before being proposed, can only signify that the mind is capable of understanding them, and rests on a false supposition that there has been no teaching (through experience) before they are proposed. (6) Lastly, Locke shows that these abstract ideas supposed innate, appear least where one would expect them to be clearest. "They are the language and business of schools and academies of learned nations, where disputes are frequent, being suited to artificial arguments, but not much conducing to the discovery of truth or advancement of knowledge." (*Hum. Und.* B.I. Ch. II.)

(C) As to practical principles—it is found by an examination of the moral rules current among various nations, and at different periods of history, that there are hardly any recognised and acted upon by all. Even faith and justice are not owned as principles by all men, and the actions of men convince us that the rule of virtue is not their internal principle, being generally approved, not because innate, but because useful. Thus moral rules require proof, and cannot be innate. This disposes of the argument that men admit the validity of those principles in their thoughts, though denying

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them in practice. Besides, Locke complains that those who maintain the innate character of moral rules, do not clearly tell us what they are. As soon as any are distinctly brought forward, it is easy to show that they are not held binding by all. Nor is it of any avail to say that such principles may be corrupted by education custom, general opinion &c ; for this quite takes away the argument of universal consent, or substitutes for it the following : "The principles which all men allow for true, are innate ; those that men of right reason admit, are the principles allowed by all mankind ; we and those of our party or sect, are men of reason ; therefore we agreeing, our principles are innate." *Hum. Und.* B.I. Ch. III. This says Locke, is a fallacy made use of every day, though transparent when stated thus clearly. (This is dwelt on in the *Conduct of the Und.* Secs. 6, 10, and other parts of the book.)

Having thus demolished the theory of Innate ideas,* Locke proceeds in the second book of the Essay, to inquire how the mind acquires its ideas. He traces them all to experience, the mind of an infant being compared to a *tabula rasa* or blank sheet of paper, on which nothing has been written. This experience, on which all knowledge depends, is twofold : (1) the perception of external objects through the special senses, which is called *Sensation* ; (2) the perception of the internal workings of the mind, which is called *internal sense*, or *Reflection*. These two faculties furnish the understanding with all its ideas, are the windows, so to speak, by which all knowledge enters the *camera obscura* (the dark chamber) of the mind ;—the external objects supply the ideas of sensible qualities, the mind supplies the understanding with ideas of its own operations. Thus Locke is not a pure sensationalist.)

The rest of the second Book is devoted to the work of deriving and explaining the ideas generally by a reference to the above two sources. The ideas are divided into *simple* and *complex*. **Simple** ideas are again subdivided into (1) those that reach the mind

* It should be added, that, of late years, the principle of Heredity has been used with great success to reconcile the theory of Innate ideas with the views of the Empirical school. The extension of the experience of the individual to that of the race,—what was called innate being viewed as inherited experience,—throws a new light on the problem of the origin of knowledge. See Spencer's *Psychology*, Part IV.

though a single sense,—as ideas of colour (through sight), of sound, of impenetrability, solidity &c. (through touch); and (2) those that are contributed by several senses,—as the ideas of extension and motion, which are due to the senses of touch* and sight combined; (3) those that are derived from reflection—as the ideas of thought and will; (4) lastly those derived from Sensation and Reflection combined, as the ideas of unity, succession, power &c. [It may be doubted whether the second and fourth of the above divisions ought properly to be classed as simple ideas.] **Complex** ideas are formed by various combinations of the simple ideas, just as in language the combinations of elementary consonants or vowels, form syllables or words. These complex ideas are classified into (1) Modes (2) Substances, (3) Relations. **The modes** are defined as complex ideas “which, however compounded, contain not in them the supposition of subsisting by themselves,” but are considered as dependent on substances: such as the ideas signified by the words *triangle*, *gratitude*, *murder* &c. The Modes are again subdivided into *Simple* and *Mixed*—the former consisting of simple ideas of the same kind combined together—and including the ideas of Space, Duration, Number, modes of Motion &c. These undergo further sub-division, into which it is needless to enter. Among *Mixed modes* (which consist of several combinations of ideas of different kinds) may be mentioned the voluntary combinations of ideas as virtues, vices and various ideas acquired by invention, observation, and the use of words. Generally it is the word that “ties the parts of mixed modes together”—as the ideas combined in *paricide*. In treating the complex ideas of **Substances**, Locke analyses the notion of *Substance* thus: We learn from sensation as well as reflection that a certain number of simple ideas frequently present themselves together; and being unable to think of these ideas as self-supported, we habituate ourselves to think of a substratum as forming their basis, and give to this creation of our brain the name of *substance*. Substance is thus the unknown something to which

* Modern psychologists, notably Prof. Bain, have shown that it is not on simple touch, but on the consciousness of our muscular energy, (including the movements of the muscles of the eye) that our ideas of extension &c. are based.

the various qualities (known through the senses or by reflection) are supposed to in here. We know, however, only the qualities or attributes.† The third class of complex ideas, viz. **Relations** are those that are formed when the mind unites two things so, that on observation of the one it immediately reverts to the other. [This is what, in later English psychology, has assumed such importance, under the name of *Association of Ideas*.] Among the Relations that Locke considers are those of Identity and Diversity, of Cause and Effect. As to this latter Relation, Locke holds that it arises on our perceiving how something (whether a substance or a quality) begins to exist in consequence of the action of another something. [Thus the second Book of Locke's *Essay* is devoted to the positive side of his philosophy—the building up from experience of a complete theory of Ideas, as the first Book embodies the negative side, that of overthrowing the theory of innate ideas.]

In the third Book, is to be found a masterly and original investigation of the nature and properties of Language, and of its relation to the ideas which it conveys, together with an exposure of the imperfections and abuses of words and suggestions as to the means of remedying them. [See notes to Sec. 29.]

Book IV. Is devoted to a discussion of knowledge in general, its degrees, its extent, the reality of various kinds of knowledge (Mathematical, moral, of substances &c.), of truth, of universal propositions (which he says, can be certain, as regards substances, only when the coexistence of the ideas composing them can be known). He then considers the important question of the knowledge of our own existence (which he says is intuitive) and of the existence of God—which he bases on the knowledge of our own existence, and on the intuitive certainty that Nothing can not produce a Being—this latter producing a conviction that there must be something Eternal, most powerful and knowing. Proceeding to our knowledge of the existence of other things, he says it is to be had only by sensation, (including the united testimony of

† This view of substance contains an element of *idealism*, and even of *scepticism* which were afterwards developed by Berkeley and Hume respectively.

more senses than one) and though not so certain as demonstration may yet be called knowledge, being a degree of certainty as great as our condition needs. The remainder of the Book is devoted to the improvement of knowledge (containing sound directions about the danger of building on precarious principles &c.,) and various important questions regarding judgment, probability, reason,* faith, assent, enthusiasm, and error. It concludes with a scheme of the division of the Sciences.

V. Locke's theory of the will. One of the doctrines in the *Essay* seems to deserve a separate mention, as it did more than anything else to make his philosophy regarded as dangerous, and to evoke considerable opposition—viz. his theory of the Will. He denies that liberty can be predicated of the will—and treats the question “whether a man's will be free or not” as no less unintelligible, and absurd than to ask whether his sleep is swift, or his virtue triangular. The question is whether a man is free in respect of willing!—and Locke answers this in the negative, observing that “It is unavoidably necessary to prefer the doing or forbearance of an action, which is once so proposed to his thoughts; a man must will the one or the other of them” [this seems to evade the real point at issue] He then shows that the Will is determined by something without it,—viz. either the motive for continuing in the same state or action, or the motive to change it; the former is simply the present satisfaction in that state, and the latter motive is always some uneasiness. Desire (which must not be confounded with will) is uneasiness; and it is this desire that determines the will, not the greatest positive good; because (1) the removal of uneasiness is the first step to happiness, and (2) because uneasiness alone is present to the mind. This is further shown by the fact that all who believe in the joys of Heaven do not pursue them, but no one neglects any great uneasiness,—and it is the most pressing uneasiness that naturally determines the will. The greatest good is not always desired because from the very

* In treating of the subject of *reason*, Locke speaks contemptuously of the *Syllogism*, as both useless, and likely to be used in a misleading way; and makes the famous remark—*God has not been so sparing to make them barely two-legged creatures, and left it to Aristotle to make them rational.*

nature of our happiness and misery, all present pain or want makes a part of our present misery, but all absent good does not at any time make a necessary part of our present happiness; nor does the absence of it make a part of our present misery; all uneasiness being removed, a moderate portion of good generally serves to content men. He then proceeds to point out that due consideration raises desire—but this consideration is only possible if we have the intellectual power of suspending the prosecution of any desire by withdrawing our attention from it. Thus it is that the understanding acts upon the Will, and Locke argues that, it is no restraint to true liberty to be determined by our own judgment,—the freest agents being so determined; on the contrary the government of our passions by our reason is the true improvement of liberty. He then analyses the reason why men come to choose ill, and traces it to wrong judgment due to various causes. Cousin, Dugald Stewart and many other thinkers contend that Locke's views on this subject tend directly to *fatalism*. But it is easy to defend them from that charge.

VI. Locke's views on Religion and morals—Some of Locke's theological opinions—those concerning the knowledge of God's existence—have already been referred to in speaking of the contents of the Fourth Book of the *Essay on the Human Understanding*. Of the other works in which Locke deals with the subject may be mentioned the *Reasonableness of Christianity* and the *Letters on Toleration*. In the former he defends the fundamental truths of Christianity and dwells on the influence of that religion on the progress and civilization of the human race. His avowed object was to see what could reasonably be drawn from the Scriptures. He only partially assents to the doctrine of original sin, through Adam's transgression; for he refuse to believe that all Adam's descendants (with the exception of the few elect) are doomed to eternal hell-fire, and holds they were only deprived of immortality, which Adam had at first been gifted with. And Jesus Christ, he says, has restored this gift to men, on condition of their repenting of their sins and of faith in God and Christ's Messiahship—the proof of which is to be found in the miracles he worked. But he also thinks

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this faith must bear fruit in life, in the practical Christ's rules of conduct from which all moral duties, understood. These doctrines gave rise to a fierce for it appeared too rationalistic to Locke's contemporaries.

The leading doctrine in the *Letters on Toleration* is, that no part of a King or Civil Magistrate's duty to regulate worship, restrain the promulgation of religious opinions—far less to try to force the conscience in matters of belief. It is only in the following cases that the Government is justified in suppressing opinions : (1) when the views are atheistical ; (2) when they are plainly subversive of society, and of morals ; (3) when opinions are preached justifying (as Roman Catholic or Jesuit teachers often did) the deposition of a heretical prince, or a revolt upsetting the Government, &c., (4) when the followers of any set of opinions do, in the very act of adopting them, deliver themselves up to the service of a foreign prince.

In **Morals**, Locke maintained a sort of utilitarianism,—as he believed Virtue and the Happiness of the people inseparably connected together ; but at the same time he looked upon Morality as entirely based on Divine Will, and the Rule prescribed by God as the true and only measure of virtue. As to the sanction of morality, or what restrains people from transgressing the moral Law, he speaks of no other than the punishment of sinners by God,—the fear of Hell-fire. . .

VII. Locke's Works on Government, Finance &c. The speculations of Locke on Government have exercised great influence on later political thinkers and on the growth of liberal sentiments of freedom both in England and on the Continent ; though indeed some of his theories—*e. g.* that of an original compact,—have become obsolete. They opened, says Hume, “a new era of political opinion in Europe.” He accounts for this by reference to the success of the English Revolution, the necessity which the powers allied against France found of maintaining the title of William, III. the peculiar interest of Holland in the new scheme of Government in England ;—all these gave weight and authority to Locke's prin-

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for these circumstances, might still have been
ons.

These are embodied in the two Treatises on Civil Govern-
ment, especially the second, for the first is devoted to a diffuse
and triumphant refutation of Robert Filmer's *Patriarchia*
see notes to sec. 44, *Conduct of the Und.*) Locke denies
that there is any natural right of the kind claimed by Filmer
for absolute monarchy as derived from a lineal ancestor and
transmitted in course of primogeniture. In the second *Treatise*,
Locke lays down the principles on which society is founded.
(a) A state of nature, he begins by saying, is a state of perfect
freedom and equality; though indeed it is limited by the law
of nature which is binding on all, and the execution of which
is put into every one's hands, for the reparation of his own
wrongs, as well as those of others. (b) Till men enter voluntarily
into some society, they are all in a state of nature. Thus kings
are still in a state of nature with respect to each other, but not
in relation to their subjects. (c) He then distinguishes between
natural and *civil liberty*,—the former being freedom from any
superior power except the law of nature, while the latter means
freedom from the dominion of any authority except that which
a legislature, established by the consent of the commonwealth,
must exercise. *No man can by his own consent enslave himself
or give power to another to take away his life.* (d) He then clearly
deduces the natural right of property from labour in gathering
the fruits of the earth or catching wild animals, as well as in the
cultivation of land. (e) He then returns to the train of rea-
soning in the first treatise against the regal authority of fa-
thers—what they possess being traced simply to the care they
take of the child during infancy and minority, after which the
power terminates, though he may still be entitled to reve-
rence, support, and compliance. He concedes this much to
Filmer's theory that "the natural fathers of families, by an
insensible change, became the political monarchs of them too;" and
when they chanced to live long, and to leave worthy heirs for se-
veral generations, they laid the foundations of hereditary kingdoms

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It have altogether overlooked the positive and immediate which might be derived from it, in the culture and growth of our intellectual and moral powers ;—in strength of instance, by early *habits* of right thinking, the authority and of conscience.”—Dugald Stewart’s *Dissertation*, Part II.

Prof. Fowler, in his *Life of Locke* (*English Men of Letters* 177-8.) remarks that the great defect of this little treatise is singular want of method—due probably to its never having been revised—and the constant repetitions met with in it, especially in the attacks on what Locke seems to have regarded as the main hindrances to the acquisition of a sound understanding, *viz.*, prejudice and pedantry. But he observes that the work abounds in just observations, and valuable cautions and suggestions and exhibits the author’s profound acquaintance with the workings of the human mind ; and that it is eminently fitted to be used as a “Student’s guide.”

